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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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OM protein - protein search, using sw model

March 18, 2005, 15:03:42; Search time 169 Seconds (without alignments) 1096.202 Million cell updates/sec Run on:

Title: Perfect score:

2500 1 MDATIAPHRIPPEMPQYGEE......YTVFEYIESGIINPLFKKIP 479 US-10-798-773-2

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2105692 Total number of hits satisfying chosen parameters:

2105692 seqs, 386760381 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

A_Geneseq_16Dec04:*
11: geneseqp1980s:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

ABB82701 standard; protein; 479 AA. AC ABB82701 standard; protein; 479 AA. AC ABB82701; XX ABB82701; XX YAR-2003 (first entry) BY NOvel human kinase polypeptide (NHP). XX XX WAHP; kinase; gene therapy; drug screening; human; enn XX WO200290517-A2. XX XX WO200290517-A2. XX WO200290517-A2. XX WY. 2002; 2002W0-US014669. PR WAY-2001; 2001US-0289727P. XX WAY. 14-NOV-2002. XX WAY. 19-MAY-2001; 2001US-0289727P. XX WH; 2003-103514/09. PR WPI; 2003-103514/09.

nutricentical applications, drug screening, clinical trial monitoring, diagnosing or treating diseases associated with biological disorders or imbalances.

The invention relates to novel human polypeptides (NHP) having kinase activity and polynucleotides encoding them. The polynucleotides, proteins and antagonists of the proteins are useful for drug screening, clinical trial monitoring, and diagnosing or treating diseases or disorders associated with biological disorders or imbalances. The proteins and polynucleotides are useful in commette and nurricentical applications, for identifying protein coding sequences and mapping a unique gene to a particular chromosome. The sequence of the polynucleotides and proteins can also be used as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology. The present sequence represents a NHP kinase

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Sequence 479 AA;
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Otsuka M,
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(REAS-) RES ASSOC BIOTECHNOLOGY.
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24-JAN-2002; 2002US-0350435P.
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Seki N, Yoshikawa T,
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New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.
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                                                                                                                               The present invention relates to novel human secretory or membrane proteins (ADAS40712-ADAS5710) and their coding sequences (ADAS4071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
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/note= "ATP/GTP binding site motif A (P-loop)"
275. .282
/note= "ATP/GTP binding site motif A (P-loop)"
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iive 0; Mismatches 0;
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                                                                                                                     421 NPKDAEEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                             421 NPKDAEEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
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361 QAHLLNRLGYNPNRVFFLNVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQ
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11-JUN-2001, 2001US-0295418P.
12-JUN-2001, 2001US-0297547P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to novel human kinases and phosphatases (KPP) polypeptides and polynucleotides. Polypeptides of the invention are used for screening agonists and antagonists. They are used to make monoclonal or polyclonal or antibodies, which are used in diagnostic tests for conditions or diseases associated with expression of the polypeptide. They are also useful for diagnosing or treating diseases or conditions associated with decreased expression or overexpression of functional KPP e.g. cardiovascular or neurological disorders or cancer. The invention is useful in gene therapy. The present sequence is human KPP protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VILGPPASGKTTIAMMLCKHLNSSLLTLENLILNEFSYTATEARRIYLQRKTVPSALLVQ 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human kinases and phosphatases (KPP), useful for preparing a composition for diagnosing or treating a disease or condition associated with decreased expression or overexpression of functional KPP e.g.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zebarjadian Y;
                                                                                                                                                                                                                                                                                                                                                                                                    Yue H, Lu DAM, Azimzai Y, Ding L, Lee EA, Hafalia AJA, Becha SD; Tang YT, Lal PG, Griffin JA, Gururajan R, Ramkumar J, Elliott VS; Arvizu CS, Luo W, Swarnakar A, Duggan BM, Tran UK, Walia NK, Gandhi AR, Yao MG, Khan FA, Baughn MR, Borowsky ML, Zebarjadian Y Richardson TW, Marquis JP, Chien D, Jin P;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Col 133-134; 82pp; English.
                                                                                                                                24-MAY-2001; 2001US-0293665P.
15-UTN-2001; 2001US-0298712P.
05-UTL-2001; 2001US-0303418P.
27-UTL-2001; 2001US-0306967P.
19-DEC-2001; 2001US-0343007P.
15-FEB-2002; 2002US-0357675P.
                                                                                          23-MAY-2002; 2002WO-US016634
                                                                                                                                                                                                                                                                                                                                                        (INCY-) INCYTE GENOMICS INC.
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Best Local Similarity 100.
Matches 479; Conservative
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ADC10108 standard; protein; 510 AA

ADC10108

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18-DEC-2003

ADC10108;

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The invention relates to novel isolated polypeptides, mature form of the polypeptide, a sequence that is 95% identical to the polypeptide or the polypeptide comprising one or more conservative substitutions. The NOVX polypeptide is useful for treating or preventing a pathology associated with the polypeptide e.g. disorders associated with aberrant expression or activity of the polypeptide, such as cancer, diabetes, obssity, and endocrine. ONS and inflammatory disorders. They can also be used in various detection and screening assays, chromosome mapping, tissue typing and predictive medicine. This sequence corresponds to one of the polypeptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TVLIERNLGKRIDPQTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVR 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 HIHRDNDNVPRIVILGPPASGKTITAMMLCKHLNSSLITLENLILNEFSYTATEARRIXL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 VIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLGFVGSGKSLQAALL 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated NOVX polypeptides and nucleic acid molecules useful for treating, preventing and diagnosing pathological conditions with NOVX-associated disorders, such as cancer, obesity, diabetes and inflammatory
Dipippo VA, Edinger SR, Eisen A, Ellerman K, Gangolli EA; Gerlach VL, Gorman L, Guo X, Herrmann JL, Hjalt T, Ji W, Kekuda I Khramtsov NV, Li L, Liu X, Malyankar UM, Miller CE, Millet I; Ort T, Paddigaru M, Patturajan M, Pena CEA, Rafeclli L, Rieger DK; Rothenberg ME, Shenoy SG, Shimkets RA, Smithson G, Spaderna SK; Spytek KA, Stone DJ, Vernet CAM, Zhong H, Zhong M, Alsobrook JP; Burgess CE, Lepley DM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tch 99.4%; Score 2484; DB 7; Length 491; al Similarity 97.6%; Pred. No. 1.9e-232; 479; Conservative 0; Mismatches 0; Indels 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDATIAPHRIPPEMPQYGEENHIFELM-----
                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 130; 772pp; English.
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N-PSDB; ADC10109.
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Best Local &
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cytostatic; antidiabetic; anorectic; cerebroprotective; neuroprotective; antidiammatory; gene therapy; antisenspy; thytominetic; NOVX; pathology; cancer; diabetes; obesity; endocrine disorder; CNS disorder; inflammatory disorder; chromosome mapping; tissue typing;
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Gerlach VL, Gorman L, Guo X, Herrmann JL, Halt T, Ji W, Kekuda F
Khramtsov NV, Li L, Liu X, Manyankar UM, Miller CE, Millet I;
Ort T, Padigaru M, Patturajan M, Pena CEA, Rastelli L, Rieger DK;
Rothenberg ME, Shenoy SG, Shimkets RA, Smithson G, Spaderna SK;
Spytek KA, Stone DJ, Vernet CAM, Zhong H, Zhong M, Alsobrook JP;
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                                                                                                                                              Human NOVX polypeptide SEQ ID NO: 128
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2001US-0295641BP

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Lepley DM;
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N-PSDB; ADC10107.
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15-JUN-2001; 2
18-JUN-2001; 2
21-JUN-2001; 2
22-JUN-2001; 2
26-JUN-2001; 2
8-JUN-2001; 2
8-JUN-2001; 2
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21-FEB-2002;
22-FEB-2002;
22-FEB-2002;
22-FEB-2002;
22-FEB-2002;
27-FEB-2002;
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03-DEC-2001;
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11-JUN-2001;
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Best Local Simi
Matches 336;
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Wang J, V
Zhou P, C
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                                                                                                                                                                                           The invention relates to novel isolated polypeptides, mature form of the polypeptide, a sequence that is 95% identical to the polypeptide or the polypeptide comprising one or more conservative substitutions. The Novx polypeptide is useful for treating or preventing a pathology associated with the polypeptide e.g. disorders associated with aberrant expression or activity of the polypeptide, such as cancer, diabetes, obesity, and endocrine, CNS and inflammatory disorders. They can also be used in various detection and screening assays, chromosome mapping, tissue typing and predictive medicine. This sequence corresponds to one of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VILGPPASGKTTIAMWLCKHLNSSLLTLENLILNEFSYTATEARRLYLORKTVPSALLVQ 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LIQERLAEEDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLIKEAVADRITFGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLD 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 QAHLLINRIGYNPURVFFLINVPFDSIMERLITLRRIDPVTGERYHIMYKPPPTMEIQARLLQ 420
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated NOVX polypeptides and nucleic acid molecules useful for treating, preventing and diagnosing pathological conditions with NOVX-associated disorders, such as cancer, obesity, diabetes and inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; humrington's disease; haemostatic; amyotrophic laeral sclerosis; Shy-Drager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MDATIAPHRIPPEMPQYGEENHIFELMQNWLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DPQTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels 44; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NPKDAEEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.9%; Score 2248; DB 7; Length 510; 90.8%; Pred. No. 1.9e-209; ive 0; Mismatches 0; Indels 44
                                                                                                                                           Claim 1; SEQ ID NO 128; 772pp; English.
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108 435; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 510 AA;
                                                                                          CNS diseases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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Matches
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The invention relates to human nucleic acids (AAIS7798-AAI61369) and the encoded polypeptides (AAAI8642-AAA46213) with noctropic,
concoded polypeptides (AAAI8642-AAA46213) with noctropic,
immunosuppressant and cytostatic activity. The polynuclectides are useful
in gene therapy. A composition containing a polypeptide or polynuclectide
of the invention may be used to treat diseases of the peripheral nervous
system, such as peripheral nervous injuries, peripheral nervous
collised neuropathies and central nervous system diseases, such as
localised neuropathies and central nervous system diseases, such as
lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
utilisation of the activities such as: Immune system suppression,
and thrombolytic activity, chemoteractic/chemotinetic activity, hemoteratics
and thrombolytic activity, arthritis and inflammation, leukaemias and
collised assays for receptor activity, arthritis and inflammation, leukaemias and
collised assays for the sequence data for this patent did not form
collised assays for the printed specification
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang D;
, Zhao Q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76 LIQERLAEBDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI
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Zhang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 276;
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llarity 53.6%; Pred. No. 1.9e-143;
Conservative 4; Mismatches 11; Indels 276
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Yang Y,
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Wang Z, Wehrman T, Xu C,
Goodrich R, Drmanac RT;
                                                                                                                                                                                                        21-JAN-2000; 2000US-00488725.
25-APR-2000; 2000US-00552117.
20-UN-2000; 2000US-00598042.
19-JUL-2000; 2000US-00598042.
14-SPE-2000; 2000US-00653450.
14-SPE-2000; 2000US-00652131.
19-OCT-2000; 2000US-0063336.
29-NOV-2000; 2000US-00727344.
                                                                                                                     26-DEC-2000; 2000WO-US034263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HYSE-) HYSEQ INC.
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WO200153312-A1
                                                                                                                                                                                23-DEC-1999;
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Human; kinase; PKIN-25; cancer; leukaemia; adenocarcinoma; osteoporosis; immune disorder; atherosclerosis; Crohn's disease; Hodgkin's disease; adquired Immune Deficiency Syndrome; ALDS; Addison's disease; anaemia; allergy; asthma; adult respiratory distress syndrome; multiple sclerosis; autoimmune thyroiditis; bronchitis; diabetes mellitus; osteoarthritis; chood pasture is syndrome; Graves' disease; pancreatitis; psoriasis; rheumatoid arthritis; ulcerative colitis; cirrhosis; Cushing's syndrome; hepatitis; hypothyroidism; cerebral palsy; cataract; angina pectoris; cardiovascular disease; hypertension; vasculitis; myocarditis; obesity; congestive heart failure; ischemic heart disease; lung tumour; gout; fatty liver; Niemann-Pick's disease; gene therapy.
                                                                                                                                                                                   326
                                                                        376 DIGSFSLGCERGLQRQGQDMRGEEEVAPVTLCSLYTYDQGDSLDLLGPIGILQEGRDPGT 435
                                                                                                                                                                                                                                                                              436 QGPQEKEKQMPASPMNTDAHLDINFKEGLKKERSYTGQFEANVRDEERQCGCGVVPDSLL 495
                                                                                                                                                                                                                                                                                                              MKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMBRLTLR 392
316 LYPLRLSELPEEELLVGALPYTFGESLETSQIPLFNPRPPNGRCSLKPLSLWEHPRLTGA 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yue H, Lal P, Bandman O, Borowsky ML, Au-Young J, Lu Y; Gandhi AR, Tribouley CM, Walia NK, Yao MG, Lu DAM, Greenwald SR; Ramkumar J, Griffin JA, Kearney L, Burford N, Nguyen DB, Tang YT; Bughn. MR, He A, Thornton M, Hafalia A, Patterson C, Gururajan R; Lo TP, Khan F, Recipon SA, Azimzai Y, Policky JL, Ding L; Grether M, Elliott VS, Thangavelu K, Batra S, Ison CH;
                                                                                                                                                                                                                                                                                                                                  QLLKEAVADRTTFGELIQPFFEKEMA-------
                                                                                                                                                                                                                                                                                                                                                                              393 RIDPVTGERYHLMYKPPPTMEIQARLL 419
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30-UN-2000; 2000US-021561FP.
07-UUL-2000; 2000US-021660SP.
13-UUL-2000; 2000US-0218372P.
25-AUG-2000; 2000US-0228056P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human kinase PKIN-25 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUN-2001; 2001WO-US019444
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The invention relates to human kinase PKIN proteins and their corresponding cDNAs. A composition containing PKIN agonist is useful for treating a disease or condition associated with decreased expression of FKIN and a composition comprising PKIN antagonist is useful for treating a disease or condition associated with overexpression of PKIN. The disorders include cancer (leukaemia, adenocarcinoma, lumphoma, melanoma, melanoma, malanoma, sarcoma, teratocarcinoma, Hodgkin's disease); immune disorder (Acquired Immune Deficiency Syndrome (AIDS), asthma, Addison's disease, atherosclerosis, anaemia, allergies, adult respiratory distress syndrome, contoinmume thyroidities, gout, bronchitis, Crohn's disease, diabetes autoimmune thyroidities, gout, bronchitis, Crohn's disease, diabetes costeoarthritis, osteoporosis, Good pasture's syndrome, yentritis, syndrome, veritis, ulcerative colitis, osteoporosis, sondrome, uveitis, ulcerative colitis, bacterial, parasitic, fungal, viral, protozoal and helminthic infections (Cushing's syndrome, Hypothyroidism, cerebral palsy, cataracts); cardio caneurysms, congestive heart failure, angina pectoris, myocarditis, aneurysms, congestive heart failure, angina pectoris, myocarditis, cischaemic heart disease, chronic bronchitis, lung tumours); lipid cischaemia, obesity). PKIN DNA is useful for assessing toxicity or and a present sequence is human and a protosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               384
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                                                                     New polypeptides, useful for diagnosing, treating or preventing disorders of growth and development, cardiovascular and lipid, and diseases such as cancer, comprise human kinase polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    205 MVPEDISELETAQKILEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           265 APFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELLQPFFEKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               325 MAVPDSLIMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLINRLGYNPNRVFFLNVPFDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human protein encoded by clone TESTI20244460.
                                                                                                                                                           Claim 1; Page 173-174; 197pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADB65473 standard; protein; 275 AA.
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Best Local Similarity 100.0
Matches 275; Conservative
              WPI; 2002-090207/12.
N-PSDB; AAD26472.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 275 AA;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention discloses a polynucleotide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel CC from 1970 fully defined nucleotide sequences which encode novel polypeptides. Also claimed is a polypeptide encoded by the polynucleotide for the polynucleotide, immunologically sasaying the polypeptide or peptide of the polynucleotide, immunologically sasaying the polypeptide or peptide of the polynucleotide, part of the polynucleotide of the polynucleotide of the polynucleotide in an expressible manner and an antistense polynucleotide. The oilgonucleotide of the two, a transformant carrying the polynucleotide in an expressible manner and an antistense polynucleotide. The oilgonucleotide is useful as a primer for synthesising the polynucleotide or as a probe of the two shoulded in them, for developing a diagnostic marker or medicines for regulation of their expression and activity, or as targets of gene may be included in them, for developing a diagnostic marker or medicines for regulation of their expression and activity, or as targets or regulation of their expression and activity, or as targets or regulation. Fine generation of their expression and activity or expression or transcription-related proteins, signal transduction-related proteins, concoding them can be used as indicators for diseases (e.g. osteoporosis, the activity or expression of the encoded protein to treat diseases. The copy activity or expression of the invention neupplied by the finances presented is a protein of the invention. Note: Some of the sequence presented for this patent is not represented in the printed sequence presented or this patent is not represented in the printed sequence presented or this patent is not represented in the printed sequence presented or this patent is not represented in the printed or presented or this patent is not represented in the printed of the procession of the survey.
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                                                                                                                                                                                                                                                                                                                                                                                      Isogai T, Sugiyama T, Otsuki T, Wakamatsu A, Sato H, Ishii S;
Yamamoto J, Isono Y, Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;
Seki N, Yoshikawa T, Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             205 MVPEDISELETAQKILEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTN 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 APFTPRVLLIGFVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGGLIQPFFGKE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polynucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          265 APFIPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKE
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  transcription-related protein; osteoporosis; neurological disease;
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(REAS-) RES ASSOC BIOTECHNOLOGY.
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                                                                                                                                                                                                     28-MAR-2002; 2002EP-00007401.
                                                                                                                                                                                                                                                 05-NOV-2001; 2001JP-00379298.
25-JAN-2002; 2002US-00350978.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   targets of gene therapy
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European Patent Office.
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N-PSDB; ADB63503.
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Best Local Similarity
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                                                                   Homo sapiens.
                                                                                                             BP1308459-A2
                                                                                                                                                         07-MAY-2003.
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385 IMERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLE 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New adenylate kinase polypeptide for diagnosing/treating cellular proliferative and/or differentiative, neurological, immune, inflammatory, lymphatic, cardiovascular, respiratory and hematological disorders.
                                                                                                                                                                                                                                                                                                                                                                  Human; 27802 protein; adenylate kinase; cellular proliferative disorder; neurological disorder; Inflammatory disorder; lymphatic disorder; cardiovascular disorder; inflammatory disorder; haematological disorder; cardiovascular disorder; perpiratory disorder; haematological disorder; crohn's disease; atherosclerosis; pernicious anaemia; asthma; leukaemia; acquired immune deficiency syndrome; NBS; multiple solerosis; lymphoma; Alzheimer's disease; systemic lupus erythematosus; SLB; gene therapy; lymphoblastic leukaemia; T-cell neoplasm; cytostatic; neuroprotective; tissue typing; antiarterioslerotic; chromosomal mapping; nootropic; dermatological; antiinflammatory; immunosuppressive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present amino acid sequence is human 27802 adenylate kinase. The 27802 protein and its corresponding nucleotide sequence is useful for modulating, disgnosing and treating cellular proliferative and/or differentiative, neurological, inflammatory, lymphatic, cardiovascular, immune, respiratory and haematological disorders. 27802 sequence is useful for treating immune disorders (e.g., Crohn's disease), disorders involving blood vessels (e.g., atherosclerosis), disorders involving red cells (e.g., pernicious anaemia), respiratory disorders (e.g., asthma), disorders involving prain and lymph nodes (e.g. acquired immune disorders sinvolving Facilis (e.g., multiple sclerosis, Alzheimer's disease), disorders involving T-cells (e.g., systemic lupus erythematosus),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Human mature 27802 adenylate kinase"
201. .251
/note= "Adenylate kinase domain 2"
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/note= "Adenylate kinase domain 1"
57. .258
                                                                                                     241 QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 275
                                                                             QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . .56
'label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                 AAE07843 standard; protein; 258 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chun M;
                                                                                                                                                                                                                                                                                                                                 Human 27802 adenylate kinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .0-FEB-2000; 2000US-0181705P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-FEB-2001; 2001WO-US004573
                                                                                                                                                                                                                                                                                         (first entry)
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N-PSDB; AAD14324.
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                                                                                                                                                                                                                                                      AAE07843;
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diseases involving haematopoietic stem cells (e.g., leukaemia), disorders involving B-cells (e.g., lymphoblastic leukaemia/lymphoma) and disorders involving precursor T-cell neoplasms. 27802 sequence is useful for modulating cellular growth and/or cellular metabolic pathways, particularly for regulating one or more proteins involved in growth and metabolism. 27802 DNA is used in gene therapy. 27802 sequence or its antibody are useful in screening assays, detection assays (e.g., chromosomal mapping, tissue typing, forensic biology), preventive medicine (e.g., diagnostic assays, prognostic assays, monitoring clinical trials and pharmacogenomics) and in methods of treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                         KQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTF 192
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTT 312
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; ATPase-like protein; phosphatidyleerine synthase-like protein; DNA fragmentation factor-like protein; vesicle-mediated transport; phospholipid scramblase-like protein; adenylate kinase protein; organelle biogenesis; cell-cycle regulation; primary brain lymphoma; protein degradation; splenomegaly; pulmonary embolism; Hodgkin disease; atresia; tuberculosis; astrocyte; apoptosis; neurodegenerative disease; DNA fragmentation; autoimmune disorder; cancer; blood clotting system; immune system; haematopoietic; hypertension; systemic sclerosis; leukopaenia; oligodendrocyte; enzyme.
                                                                                                                                                                                                                                                                                                               73 IAMWLCKHINSSLLTLENLILNEFSYTATEARRIYLQRKTVPSALLVQLIQERLAEEDCI
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/note= "Casein kinase II (CK2) phosphorylation site"
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/note= "Casein kinase II (CK2) phosphorylation site"
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                                                                                                                                                                                                                       Query Match 52.0%; Score 1301; DB 4; Length 258; Best Local Similarity 99.6%; Pred. No. 1.1e-117; Matches 253; Conservative 1; Mismatches 0; Indels (
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                                                                                                                                                                                          Sequence 258 AA;
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human 32621, phospholipid scramblage-like molecules are useful for modulating immune, haematopoietic and blood clotting systems. They are useful for treating a disorder associated with abermant human phospholipid scramblage-like protein activity such as leukopaenia and systemic sclerosis. The human 27802 adenylate kinase are useful for modulating cellular growth and/or cellular metabolic pathways. They are

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The present invention relates to novel proteins including ATPase-like proteins, phosphatidylserine synthase-like proteins, DNA fragmentation factorilike proteins phosphatidylserine synthase-like proteins or adenylate kinase proteins and polymuclectides encodiating such proteins. The human careful in modilating organelle biogenesis, cell-cycle regulation, protein degradation and vesicle-mediated transport. They are also useful for treating disorders associated with aberrant ATPase-like expression or treating disorders associated with aberrant ATPase-like molecules are useful for modulating the biosynthetic pathway involving the synthesis of useful for modulating the biosynthetic pathway involving the synthesis of the membrane phosphatidylserine (PS). They human phosphatidylserine synthase-like molecules are useful for treating disorders associated with aberrant human phosphatidylserine synthase activity such as the protein disease. The human 569s, DNA fragmentation factoring astrocytes and Hodgkin disease. The human 569s, DNA fragmentation factoring the molecules are useful for modulating apoptotic events, including DNA fragmentation. The human 569s molecules are useful for treating diseases and autoimmume disporders, neurodegenerative diseases and earcer. The form of the process of the proc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated polypeptides including phosphatidylserine synthase-like polypeptide useful for identifying a compound which binds and modulates activity of the polypeptide useful for treating diseases, e.g. cancer.
                                                                                                                                                                                                                                                 206. .211
/note= "N-myristoylation site"
207. .209
/note= "Protein kinase C (PKC) phosphorylation site"
                                                                                                                                                                                                                                                                                                                                                        "Casein kinase II (CK2) phosphorylation site"
                                                         note= "Casein kinase II (CK2) phosphorylation site"
                                                                                                   (CK2) phosphorylation
                                                                                                                                           "Protein kinase C (PKC) phosphorylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Meyers RE;
                                                                                                                                                                                                                                'note= "ATP/GTP binding site motif"
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                                                                                                   "Casein kinase II
                 'note= "Amidation site"
                                                                                                                                                                                      /note= "Domain 1"
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2000US-0185609P.
2000US-0185946P.
2000US-0185947P.
2000US-0186234P.
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2001US-00790179.
2001US-00790180.
2001US-00790838.
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                                                                                                            /note= "P
                                                                                                                                                                                                         .210
                                                                               139. .142
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                                                                                                      'note=
                                                                                                                                                                                                                                                                                                                                                            /note=
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Modified-site
                                                                                                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-FEB-2000;
29-FEB-2000;
29-FEB-2000;
                                          Modified-site
                                                                                  Modified-site
                                                                                                                                                                                                                                                        Modified-site
                                                                                                                                                                                                                                                                                                Modified-site
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12-FEB-2001;
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22-FEB-2001;
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WO200154733-A1.
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                                                                              73 IAMWILCKHILNSSILITLENLILNEFSYTATEARRIYLQRKTVPSALLIVQLIQERLAEEDCI 132
                                                                                                                   192
                                                                                                                                      120
                                                                                                                                                       252
                                                                                                                                                                oy;
                                                                                                                                                                                        ALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTT 312
                                                                                                  9
useful for treating hypertension, atherosclerosis and oligodendrocytes. The present sequence is human 27802, adenylate kinase protein
                                                                                                                                                                                                                                                                                                                                                              Human, nootropic, immunosuppressant, cytostatic; gene therapy; cancer, peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's Parkinson's disease; huminington's disease; hamostatic; amyotrophic lateral sclerosis; SNy-Drager Syndrome; chemotactic; chemotactic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                             61 KQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTF
                                                                                          KOGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTF
                                                                                                                                                      DWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVISADQPCVDVFYQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ren F, Wang D;
Zhang J, Zhao
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                                            Length 258;
                                                             0; Indels
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Yang Y,
                                            Query Match 52.0%; Score 1301; DB 7; Best Local Similarity 99.6%; Pred. No. 1.1e-117; Matches 253; Conservative 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ma Y,
Xue AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Liu C, Asundi V, Chen R,
Wang Z, Wehrman T, Xu C,
Goodrich R, Drmanac RT;
                                                                                                                                                                                                                                                                                          AAM40681 standard; protein; 240 AA.
                                                                                                                                                                                                                                                                                                                                                Human polypeptide SEQ ID NO 5612.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-JAN-2009; 2000US-0041L275.
25-ARR-2000; 2000US-00488725.
20-JUN-2000; 2000US-0058842.
19-JUN-2000; 2000US-0062312.
03-AUG-2000; 2000US-00653450.
14-SEP-2000; 2000US-00653450.
19-CCT-2000; 2000US-0062313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-DEC-2000; 2000WO-US034263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00471275
                                                                                                                                                                                                                             FGELIQPFFEKEMA 326
                                                                                                                                                                                                                                         241 FGELIQPFFEKEMA 254
                                                                                                                                                                                                                                                                                                                            22-OCT-2001 (first entry)
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N-PSDB; AAI59837.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HYSE-) HYSEQ INC.
                          Sequence 258 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200153312-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                              leukaemia.
                                                                                                                  133
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Wang J, 1
Zhou P, 0
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The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM4213) with noctropic,

concoded polypeptides (AAM38642-AAM4213) with noctropic,

immunosuppressant and cytostatic activity. The polynuclectides are useful

in gene therapy. A composition containing a polypeptide or polynuclectide

of the invention may be used to treat diseases of the peripheral nervous

system, such as peripheral nervous injuries, peripheral nervous

contains and neuropathies and central nervous system diseases, such as

localised neuropathies and central nervous system disease, such as

caltaeiner's, Parkinson's disease, Huntington's disease, amyotrophic

lateral sclerosis, and Shy-Drager Syndrome. Other uses include the

utilisation of the activities such as: Immune system suppression,

activin/inhibin activity, chemoteactic/chemotanetic activity, hemoteactic/chemotanetic activity, hemoteactic/chemotanetic

and thrombolytic activity, ancer diagnosis and therapy, drug screening,

assays for receptor activity, arthritis and inflammation, leukaemias and

con a disorders. Note: The sequence data for this patent did not form

part of the printed specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 VILGPPASGKTTIAMWLCKHLNSSLLTLENLILNEFSYTATEARRLYLORKTVPSALLVO 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 LIQERLAEEDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82 LIGERLABEBDCIKQGWILDGIPETRRQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 DPQTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142 DPQTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI 201
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
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Novel nucleic acids and polypeptides, useful for treating disorders such as central nervous system injuries.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MDATIAPHRIPPEMPQYGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 MDATIAPHRIPPEMPQYGEBNHIFELMQ--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 83.9%; Pred. No. 2.2e-106; Similarity 83.9%; Pred. No. 2.2e-106; Africonservative 0; Mismatches 0; Indels 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel signal transduction pathway protein, Seg ID 870.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGS
                                                                                                                            SEQ ID NO 5612; 10078pp; English.
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Matches 234; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 240 AA;
                                                                                                                                       Example 2;
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Ruben SM
                                                                                                       2000US-02370399.
2000US-0237040P.
2000US-0237040P.
2000US-02417859.
2000US-02417859.
2000US-0241786P.
2000US-0241809P.
2000US-0241809P.
2000US-0241809P.
2000US-0241809P.
2000US-0244617P.
2000US-0246478P.
2000US-0246218P.
2000US-0246218P.
2000US-0246218P.
2000US-0246218P.
2000US-0249218P.
2000US-0251988P.
2000US-0251989P.
2000US-0251989P.
2000US-0251989P.
2000US-0251989P.
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29-SEP-2000; 29-SEP-2000; 29-SEP-2000; 29-SEP-2000; 29-SEP-2000; 20-SEP-2000; 20-SE
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   20000US-0216647P.
2000US-0216647P.
2000US-0216647P.
2000US-0211487P.
2000US-0229664P.
2000US-02245118P.
2000US-0225213P.
2000US-0225267P.
2000US-022527P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-0232344P.
2000US-023234P.
2000US-023234P.
2000US-023239P.
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                                                  17-JAN-2001; 2001WO-US001312
                                                                             31-JAN-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
24-MAR-2000; 2
21-JAN-2000; 2
21-JAN-2000; 2
21-JAN-2000; 2
21-JAN-2000; 2
21-JAN-2000; 2
21-JAN-2000; 2
22-JAN-2000; 2
23-JAN-2000; 2
24-JAN-2000; 2
24-JAN
                   02-AUG-2001
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The invention relates to an isolated polypeptide. The polypeptide is useful for diagnosing a pathological condition or a susceptibility to a
           The invention relates to novel isolated polypeptides (I), and diagnosing preventing and treating diseases including immune system diagnosing, preventing and treating diseases including immune system disorders (e.g. congenital and acquired immunodeficiencies, autoimmune transplant rejections and graft versus host disease, infections diseases (e.g. hepatitis C), bleeding disorders, haemoglobin abnormalities and other blood-related disorders (sicke cell anaemia), myeloproliferative disorders, primary haematopoietic disorders, hyperproliferative disorders (e.g. disorders, primary haematopoietic disorders, introdegenerative disorders (e.g. disorders, primary haematopoietic disorders (e.g. stissease, Parkinson's disease), chromosomal abnormalities (lown syndrome), ischaemic injury (e.g. stroke), renal disorders (e.g. oflown syndrome), ischaemic injury (e.g. stroke), renal disorders (e.g. pluelial cell proliferation, endocrine disorders (e.g. Addison's citikammatory disorders, dermatological disorders (e.g. Addison's copibelial cell proliferation, endocrine disorders (e.g. Addison's copibelial cell proliferation, endocrine disorders (e.g. Addison's disease), reproductive system disorders, distrators of thismmatory disorders, liver disorders (distrators), and sonders (e.g. Addison's copibelial cell proliferation, and as a means to induce tumour proliferation in pathologies e.g. acquired immune deficiency syndrome (AlbS). Additofs), sequences of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human, autoimmune disease; Parkinson's disease; silicosis; gastrointestinal disease; atherosclerosis; haemophilia; thrombocytopenia; immunosuppressive agent; adjuvant; enhance immune response; higher affinity antibody induction; increased serum immunoglobulin concentration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRDISELETAQKLLEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTNAP 266
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                                                             Novel polypeptides useful for diagnosing, treating, preventing and/or. prognosing disorders related to the proteins, including cancers, immune disorders and neuronal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147 QALRIQTLGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTFDWPPESEIQNRLMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327 VPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYN 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 VPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYN 225
                                                                                                                                            Claim 1; SEQ ID NO 870; 880pp; English.
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WPI; 2001-465460/50.
N-PSDB; AAS27222.
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New. isolated polypeptide useful for diagnosing and treating immunosuppressive conditions such as autoimmune disease and
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                                                                                                                                                                                                                                                                                                                                                                                 20000S-0228924P
20000S-022834P
20000S-0229344P
20000S-0229348P
20000S-0229349P
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20000S-023423P
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20000S-023423P
20000S-023423P
20000S-023437P
                                17-JAN-2001; 2001US-00764868.
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(RUBE/) RUBEN S M.
(BARA/) BARASH S C.
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14-MG-2000,
14-MG-2000,
14-MG-2000,
14-MG-2000,
30-MG-2000,
30-MG-2000,
01-SEP-2000,
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02-OCT-2000;
02-OCT-2000;
13-OCT-2000;
20-OCT-2000;
14-NOV-2002
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pathological condition in a subject, by determining the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the condition based on the presence or amount of expression of the polypeptide. Which involves contacting the polypeptide is also useful for identifying a binding partner and determining whether the binding partner ceffects an activity of the polypeptide. The polypeptide or the moleic acid encoding the polypeptide is useful for preventing, treating, or ameliorating a medical condition, which involves administraing the polypeptide or the nucleic acid acid to a mammalian subject. The nucleic acid andionosing a pathological condition or a susceptibility to a pathological condition in a subject, which involves determining the presence or absence of a mutation in The nucleic acid, and diagnosing a pathological condition or susceptibility to a pathological condition or autopation or autopatical condition or autopation or an antibody to the polypeptide are useful for treating autolimmune disease, Parkinson's disease, allicosis, gastrointestinal disease, atherosclerosis, haemophilia, thrombocytopenia. The polypeptide, the nucleic acid and the antibody are useful as immunosuppressive agents, as adjuvants to enhance immune responses, and as agents to induce higher affinity antibodies and increase serum immunoglobulin concentrations. The present sequence represents the amino acid sequence of a novel human concentration but was obtained in electronic format direct from cusper sequence of the sequence charaction but was obtained in electronic format direct from USPTO at sequence charaction the mino acid sequence of an aced the nucleic acid.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147 QALRIQTLGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTPDWPPESEIQNRLMV 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FTPRVLLIGEVGSGKSLQAALLAQKYRLVNVCCGQLLKRAVADRTTFGELLQPFFEKEMA 326
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 225; Conservative
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The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polymedecides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopoiesis regulating activity, tissue growth factor activity, immunomodulatory activity and activity inhibin activity and may be useful in the diagnosis and/or treatment of cancer, leukaemia, nervous system diagnosis and/or inflammation. Note: Records for SEQ ID NO 2110 (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the sequence listing were missing at the time of publication

Nucleic acids encoding polypeptides with cytokine-like activities, useful in diagnosis and gene therapy.

Claim 20; Page 3307; 6221pp; English.

Xu C, Cao Y; , Chen R, Wang ZW;

Asundi V, Zhou P, X J, Zhang J, Ren F, Goodrich R;

Wang D, Wang Wejhrman T, Drmanac RT,

Tang YT, Liu C, Ma Y, Zhao QA, Xue AJ, Yang Y,

WPI; 2001-476283/51.

N-PSDB; AAK51550

01-SEP-2000; 2000US-00654936. 15-SEP-2000; 2000US-00663561. 20-OCT-2000; 2000US-00693325. 30-NOV-2000; 2000US-00728422.

(HYSE-) HYSEQ INC.

2000US-00560875. 2000US-00620325

27-APR-2000; 20-JUN-2000; 19-JUL-2000;

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96 VPDSLIAMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIM 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        327 VPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIM 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia; nervous system disorder; arthritis; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         387 ERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 248;
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32.2%; Score 806; DB 4; 1
Best Local Similarity 100.0%; Pred. No. 1.6e-69;
Matches 153; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447 YGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 YGSAITLNGDQDPYTVFEXIESGIINPLPKKIP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 248 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human protein SEQ ID NO 1079.
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Homo sapiens

05-FEB-2001; 2001WO-US004098

WO200157190-A2 Homo sapiens

06-NOV-2001

AAM78417;

446

Gaps ;

WO200157190-A2.

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The invention relates to polynucleotides (AAKS1456-AAKS3435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to production of cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, hematopoises regulating activity, tissue growth factor activity, immunomodulatory activity and activity, tissue growth factor activity, immunomodulatory activity and activitianian activity and may be useful in the diagnosis and/or treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: Records for SEQ ID NO 2110 (AAKS2581), 2111 (AAKS2582) and 3666 (AAM8002D) are omitted as the relevant pages from the sequence listing were missing at the time of publication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acids encoding polypeptides with cytokine-like activities, useful in diagnosis and gene therapy.
                                                                                                                                                                                                                                                                                                                                         Tang YT, Liu C, Drmanac RT, Asundi V, Zhou P, Xu C, Cao Y;
Ma Y, Zhao QA, Wang D, Wang J, Zhang J, Ren F, Chen R, Wang ZW;
Xue AJ, Yang Y, Wejhrman T, Goodrich R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 20; Page 237; 6221pp; English.
                                                                                                                 03-FEB-2000; 2000US-00496914.
27-AFR-2000; 2000US-00560875.
19-UTL-2000; 2000US-00590075.
11-SEP-2000; 2000US-00654936.
15-SEP-2000; 2000US-0065561.
20-CTT-2000; 2000US-0069325.
30-NOV-2000; 2000US-0069325.
                                                                               05-FEB-2001; 2001WO-US004098
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N-PSDB; AAK52534.
                                                                                                                                                                                                                                                                                                     (HYSE-) HYSEQ INC.
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                                        09-AUG-2001
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327 VPDSLLAMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIM 386 74 VPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNREFFLNVPFDSIM 133 0; Gaps Query Match 32.0%; Score 800; DB 4; Length 226; Best Local Similarity 99.3%; Pred. No. 5.5e-69; Matches 152; Conservative 0; Mismatches 1; Indels q ઠ

387 ERLTLERIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQL 446 셤 ò ò

447 YGSAITLNGDQDPYTVPEYIESGIINPLPKKIP 479

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Search completed: March 18, 2005, 15:17:38 Job time : 173 sec8

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GenCore version 5.1.6

Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: March 18, 2005, 15:09:38 ; Search time 43 Seconds (without alignments)

1071.810 Million cell updates/sec

Perfect Score: US-10-798-773-2

Perfect Score: 1 MADTIAPHRIPPEMPQYGEE......YTVFEXIESGIINPLPKKIP 479

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum Match 0*

Maximum Match 0*

Maximum Match 0*

Listing first 45 summaries '

Database: PIR 79:*

1: pir::*
2: pir::*
3: pir::*
3: pir::*
4: pir::*
3: pir::*
3: pir::*
4: pir::*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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RESULT 2 D69334

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ALIGNMENTS

Length 212;

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; Score 273; DB 2;
; Pred. No. 1.2e-11;
46; Mismatches 85;
         ch 10.9%;
1 Similarity 31.6%;
67; Conservative 4
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         adenylate kinase (EC 2.7.4.3) - Archaeoglobus fulgidus
NyAlternate names: ATP-AMP transphosphorylase
C;Species archaeoglobus fulgidus
C;Accession: D69334
R;Klenk, H.P.; Clayton, R.D.; White, O.; Nelson K.E.; Ketchum, K.A.; Dodson
S;Klenk, H.P.; Clayton, R.D.; Quackenbush, J.F.; White, O.; Nelson K.E.; Ketchum, K.A.; Dodson
S; Fleischmann, R.D.; Quackenbush, J.F.; White, O.; Nelson, G.G.; Gill, S.; Kirkness, E.P.
Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.
Nature 390, 384-370, 1991
A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S.
Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archaec
A;Reference number: A69250; MUID:98049343; PMID:9389475
A;Actension: D69334
A;Actension: D69334
A;Actension: Caid sequence not shown; translation not shown
A;Molecule type: DNA
A;Molecule to the type: DNA
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Rivettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Heid Rivettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Heid S., J. Holtzapple, I. Holtsey, B.K.; Holt, I.E. Science 293, 498-506, 2001
A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison, A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison, A;Aitle: Complete Genome Sequence of a virulent isolate of Streptococcus pneumoniae. A;Accession: B95027
A;Accession: B95027
A;Accession: Poston A;Accession: Grand A;Accession: Caracteristic Carac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63 VVIGIVKERLQQPDC-EKGFILDGFPRTLAQARALDEMLKELNKKIDAVINVVVPEEEVV 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387 BRLTLERIDPVTGERYHLMYKPP----PTWEIQARLLONPKDAEEQVKLKMDLFYRNSAD 442
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Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  adenylate kinase [imported] - Streptococcus pneumoniae (strain TIGR4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443 LEQLY---GSAITLNGDQDPYTVFEYIES 468
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A,Gene: SP0231
C,Superfamily: adenylate kinase
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Matches 67; Conserv
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adenylate kinase (EC 2.7.4.3) [imported] - Streptococcus pneumoniae (strain R6)
C;Species: Streptococcus pneumoniae
C;Species: Streptococcus pneumoniae
C;Date: 22-OCt-2001 #sequence_revision 22-Oct-2001 #text_change 09-Jul-2004
C;Accession: B97898
R;Hoskins, J.A.; Alborn Jr., W.; Arnold, J.; Blaszczak, L.; Burgett, S.; DeHoff, B.S.; Er e, R.; LeBlanc, D.J.; Alborn Jr., W.; Lefkowitz, E.J.; Lu, J.; Matsushima, P.; McAhren, S.; Mc, P.; Sun, P.M.; Winkler, M.S.
J; Bacteriol. 183, 5709-5717, 2001
A;Authors: Yang, Y.; Young-Bellido, M.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, S.R.; A;Accession: B97898
A;Accession: B97898
A;Accession: B97898
A;Accession: B97898
A;Accession: B97898
A;Accession: Preliminary
A;Asture: preliminary
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                                                                                                                                                           331 LLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNR----LGYNPNRVFFLNVPFDSIM
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                                                                                                 271 VLLIGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDS
Gaps
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Harder Kinase [imported] - Clostridium acetobutylicum
C;Species: Clostridium acetobutylicum
C;Accession: H97282
K;Nolling, J; Breton, G; Omelchenko, M.V.; Markarova, K.S.; Zeng, Q; Gibson, R.; Lee,
J; Balty, M.J.; Bennett; Gin, i Koonin, B.V.; Smith, D.R.
J; Bacteriol. 183, 4823-4838, 2001
A;Title: Genome Sequence and Comparative Analysis of the Solvent-Producing Bacterium Clc
A;Reference number: A96900; MUID:21359325; PMID:21359325
A;Status: preliminary
A;Residues: 1-21s - KKIR-
A;Residues: 1-21s - KKIR-
A;Residues: 1-21s - KKIR-
A;Experimental source: Clostridium acetobutylicum ATCC824
A;Genetica:
C;Superfamily: adenylate kinase
                                                           A; Molecule type: DNA
A; Residues 1-217 cTAK>
A; Residues 1-217 cTAK>
A; Residues 1-217 cTAK>
A; Residues 1-217 cTAK>
A; Coss = references: UNIPROT: P38372; EMBL: AB017508; NID: 94512395; PIDN: BAA75292.1; PID: 94
A; Experimental source: strain C-125
R; Takami, H: Nakasone, K: Takaki, Y: Maeno, G: Sasaki, R.; Masui, N.; Fuji, F: Hira
Nucleic Acides Res. 28
A; Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and A; Reference number: A83650; MUID: 20512582; PMID: 11058132
A; Retaus: preliminary
A; Molecule type: DNA
;:Itle: Sequence analysis of a 32-kb region including the major ribosomal protein gene
| Reference number: Z22756; MUID:99209008; PMID:10192928
| Accession: T44404
                                                                                                                                                                                                                                                                                                                               ;Status: preliminary
Molecule type: DNA
Residues: 1-217 <570-0
Residues: 1-217 <570-0
Residues: GB:AP001507; GB:BA000004; NID:g10172612; PIDN:BAB03874.1; GSPDB:GN00
Resermental source: strain C-125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               383 DSIMERLTLRRIDPVTGERYHLMYKPPPTMEI----QARLLQNPKDAEEQVKLKMDLFYR 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             270 RVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKRAVADRTTFGELLQPFFEKEMAVPD 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ch 10.9%; Score 272; DB 2; Length 217;
1 Similarity 31.3%; Pred. No. 1.4e-11;
66; Conservative 42; Mismatches 83; Indels 20;
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C,Superfamily: adenylate kinase
C,Keywords: phosphotransferase
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Best Local Similarity
Matches 66; Conserva
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Cadenylate kinase VC0986 [imported] - Vibrio cholerae (strain N16961 serogroup O1)
C.Species: Vibrio cholerae
A.Species: Vibrio cholerae
C.Species: Vibrio c
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adenylate kinase (EC 2.7.4.3) - Bordetella pertussis
N.Alternate names: ATP-AMP transphosphorylase
C.Accession: Salone
C.Bate: 07-Sep-1994 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C.Accession: $43016
But. J. Blochem. 218, 921-927, 1993
A.Fitles. A.M.; Sismeiro, O.; Munier, H.; Fabian, H.; Mantsch, H.H.; Surewicz, W.K.; Cra
But. J. Blochem. 218, 921-927, 1993
A.Fitles. Structural and physico-chemical characteristics of Bordetella pertussis adenyla
A.Fitles structural and physico-chemical characteristics of Bordetella pertussis adenyla
A.Fitles encelle type: DNA
A.Residues: 1-218 dIL.
A.Residues: 1-218 dIL.
A.Cross-references: UNIPROT:P39968; EMBL: Z29715; NID:9453620; PIDN: CAA82801.1; PID:94536
A.Experimental source: strain 18323
330 SILMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNR----VFFLNVPFDSI 385
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  390 TLRRIDPVTGERYHLMYKPPPTMEIQAR-----LLQNPKDAEEQVKLKMDLFYRNSAD 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                386 MERLTLRRIDPVTGERYHLMYKPPPTMEI----QARLLQNPKDAEEQVKLKMD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 10.3%; Score 257.5; DB 2; Length 214; Best Local Similarity 29.6%; Pred. No. 1.4e-10; Matches 55; Conservative 47; Mismatches 73; Indels 11;
                                                                                                                                                                                                                                                                                                                                                                                      ---LFYRNSADLEQLYGSAITLNGDQDPYTVFFYIES 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 PLVVYYRNEAVLK-----SVDGTQDIDKVFEDIRN 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Gene: VC0986
A,Map position: 1
C,Superfamily: adenylate kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | : | |
LIEYYG 183
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A;Accession: JS0492
A;Molecule type: DNA
A;Residues: 1-217 <NAK>
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                                                   447 Y 447
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A; Title: The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.

A; Reference number: A70300; MUID:9819666; PMID:9537320

A; Recession: G70300; MUID:9819666; PMID:9537320

A; Ratuus: preliminary; nucleic acid sequence not shown; translation not shown

A; Ratuus: preliminary; nucleic acid sequence not shown; translation not shown

A; Residues: 1-206 < AQF>

A; Cross-references: UNIPROT:066490; GB:AE000672; NID:92982810; PIDN:AAC06438.1; PID:9298

A; Experimental source: strain VF5

C; Genetics:

A; Genetics:

A; Genetics:

A; Geneticion: catalyzes reversible phosphorylation of AMP with ATP to form two ADP

A; Description: catalyzes reversible phosphorylation of AMP with ATP to form two ADP

A; Description: catalyzes hosphorylation of AMP with ATP to form two ADP

A; Description: catalyzes hosphorylation of AMP with ATP to form two ADP

A; Description: nucleotide-binding motif A (P-loop) #status atypical

F; 77-48 Region: nucleotide-binding motif A (P-loop) #status atypical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       adenylate kinase (EC 2.7.4.3) - Aquifex aeolicus
C;becies: Aquifex aeolicus
C;bate: 08-May-1998 #sequence_revision 08-May-1998 #text_change 09-Jul-2004
C;Accession: G70307
R;Deckert, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox, A.L.; Graham, D.E.; Oy
                                                          form two ADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQA----HLLNRLGYNPNRVFFLNVPFDSIM 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQL 446
                                                                                                                                                                                                                                                                                                     2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    389
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 330 SILMKVLSQRLDQQDCIQXGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERL
                                                                                                                                                                                                                                                                                                                                                                                 Gaps
C;Genetics:
A;Gene: adk
A;Gene: adk
C;Function:
A;Description: catalyzes reversible phosphorylation of AMP with ATP to i
A;Description: catalyzes reversible phosphorylation of AMP with ATP to i
A;Note: magnesium required
C;Superfamily: ademylate kinase
C;Keywords: ATP; P-loop; phosphotranaferase
C;Keywords: ATP; P-loop; phosphotranaferase
F;7-1-4/Region: nucleocide-binding motif A (P-loop) #status atypical
F;80-85/Region: nucleotide-binding motif B #status atypical
F;80-85/Region: nucleotide-binding motif B #status atypical
F;30,84,126/Active site: Ser, Asp, His #status predicted
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                                                                                                                                                                                                                                                         DB 2; Length 218;
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                                                                                                                                                                                                                                                                                                       86; Indels
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                                                                                                                                                                                                                                                               10.3%; Score 256.5; DB 2 32.1%; Pred. No. 1.7e-10;
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                                                                                                                                                                                                                                                                                                            34; Mismatches
                                                                                                                                                                                                                                                                      Ouery Match
Best Local Similarity 32.1%
Matches 59; Conservative
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Best Local S
Matches 56
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A;Rocession: Sudely

A;Roslecule type: DNA

A;Residues: 1-99 <SUNA

A;Reperimental Source: Strain Marburg; cell line PB2

A;Rxperimental Source: Strain Marburg; cell line PB2

A;Rxperimental Source: Strain Marburg; cell line PB2

A;Runst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter

R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter

R;Kunst, F.; Ogasawara, N.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Cho

A;Authors: Foulger, D.; Fritz, C.; Fujtta, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler

A;Authors: Foulger, D.; Frizz, C.; Fujtta, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler

Koetter, P.; Koningstein, G.; Korgh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Iradinois,

Kieger, M.; Ajvolta, C.; Rocha, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Potterelle,

A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Scantocter,

A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Scanto,

A;Authors: Yoshikawa, H.; Jumakelin, B.; Yoshikawa, H.; Danchin, A.; Taca, K.; Yoshida,

A;Authors: Yoshikawa, H.; Zumstein, B.; Posse, W.; Yasumoto, K.; Yata, K.; Yoshida, K.;

A;Authors: Yoshikawa, H.; Zumstein, B.; Park, M.; Danchin, A.; Taca, K.; Yoshida, K.; Allerle: The complete genome sequence of the Gram-Positive bacterium Bacillus subtilis.

A;Reference number: A69580; MUID:98044033; PMID:9384377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-116 < YOS>
A; Residues: 1-116 < YOS>
A; Cross-references: EMBL:M31102; NID:g1184272; PIDN:AAB59119.1; PID:g143579
A; Experimental source: strain 1A241
A; Experimental source: strain 1A241
R; Suh, J.W.; Boylan, S.A.; Thomas, S.M.; Dolan, K.M.; Oliver, D.B.; Price, C.W.
Mol. Microbiol. 4, 305-314, 1990
A; Title: Isolation of a sacY homologue from Bacillus subtilis: evidence for a common provant training and a sacY homologue from Pacillus subtilis: soldence for a common provant training S08628; MUID:90251170; PMID:2110998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: UNIPROT:P16304; GB:D00619; NID:g216336; PIDN:BAA00496.1; PID:g216340 R;Yoshikawa, H.; Doi, R.H. Nucleic Acids Res. 18, 1647, 1990 A;Title: Sequence of the Bacillus subtilis spectinomycin resistance gene region. A;Reference number: S12680; MUID:90221911; PMID:2139212 A;Accession: S12684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:Z99104; GB:AL009126; NID:g2632267; PIDN:CAB11913.1; PID:g2632404
A;Experimental source: strain 168
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adenylate kinase (EC 2.7.4.3) - Bacillus subtilis
NiAlternate names: ATP-AMP transphosphorylase
C;Species: Bacillus subtilis
abcillus subtilis
C;Species: Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text_change 09-Jul-2004
C;Date: 07-Sep-1990 #sequence revision 07-Sep-1990 #text_change 09-Jul-2004
C;Accession: US0492; S12684; S08630; E69583
R;Nakamura, K.; Nakamura, A.; Takamatsu, H.; Yoshikawa, H.; Yamane, K.
J. Biochem. 107, 603-607, 1990
J. Biochem. 107, 603-607, 1990
A;Title: Cloning and characterization of a Bacillus subtilis gene homologous
A;Reference number: US0490; WUID:9029290; PMID:2113521
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C,Superfamily: adenylate kinase
C,Keywords: ATP: P-loop; phosphotransferase
C;T-14/Region: nucleotide-binding motif A (P-loop) #status atypical
F;80-85/Region: nucleotide-binding motif B #status atypical
F;28,84/Active site: His, Asp #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - Bacillus subtilis
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us-10-798-773-2.rpr

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A;Title: Genome sequence of the endocellular bacterial symbiont of aphids Buchnera sp. ?
A;Reference number: A84930; MUD:20445173; PMID:10993077
A;Accession: E84986
A;Accession: E84986
A;Accession: By preliminary
A;Molecule type: DNA
A;Residues: 1-215 < STO>
A;Residues: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adenylate kinase (EC 2.7.4.3) [imported] - Yersinia pestis (strain CO92)
C.Species: Yersinia pestis
R.Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B.
Geno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;
Il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, R.; Whitehead, S.; Barrell,
A.Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A.Reference number: AB0001; MUID:21470413; PMID:11586360
A.Stetus: preliminary
A.Stetus: preliminary
A.Stetus: preliminary
A.Stetus: L.214 cKUR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             270 RVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      330 SLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERL 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 BIVCHLIKORIKKHDCI-NGFILDGFPRTIQQALYLSKKNIKIDYVLEFIIPHEYILERI 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116 ALLVQLIQERLAEEDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERN 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62 BLVIALVKERITQEDC-RDGFLIDGFPRITPQADAMKEAGIKVDYVLBFDVPDELIVBRI 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        176 LGKRIDPQTGEIYHTTFDWPPESEIQN-----RLMVPEDISELETAOKLLEYHRNIVRVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.7%; Score 241.5; DB 2; Length 215;
8.6%; Pred. No. 1.8e-09;
ve 44; Mismatches 81; Indels 5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                          28.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         52; Conservative
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C.Superfamily: adenylate kinase
C.Keywords: phosphotransferase
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Best Local Similarity 28.6%
Matches 53; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      adenylate kinase [imported] - Staphylococcus aureus (strain N315)
C; Species: Staphylococcus aureus
C; Species: Staphylococcus aureus
C; Species: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004
C; Accession: H90019
R; Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Oguc
Ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Oguc
C; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001
A; Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus.
A; Accession: H90019
A; Accession: H90019
A; Molecule type: DNA
A; Residues: 1-215 - KUR>
A; Molecule type: DNA
A; Residues: 1-215 - KUR>
A; Residues: 1-215 - KUR>
A; C; Genetics:
C; Genetics:
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                                                                                                                                   271 VLILGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDS 330
                                                                                                                                                                                                                                                             331 LLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQA----HLLNRLGYNPNRVFFLNVPFDSIM 386
                                                                                                                                                                                                                                                                                                   63 VIGIVKERLGKODC-ERGFLLDGFPRTVAQARALEBILEBYGKPIDYVINIEVDKOVIM 121
                                                                                                                                                                                                                                                                                                                                                                                  387 BRLTLRRIDPVTGERYHLMYKPPPTWEI----QARLLQNPKDAEEQVKLKMDLFYRNSAD 442
                                                                                                                                                                             271 VLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDS 330
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387 BRITLRRIDPVIGERYHLMYKPPPTWEI----QARLLQNPKDAEEQVKLKMDLFYRNSAD 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63 VTVGIVKERISEDDA-KKGFLLDGFPRTIEQAEALNNIMSELDRNIDAVINIEVPEEELM 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89; Indels 12; Gaps
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C;Species: O2-Mar-2001 #text_change 23-Mar-2001
C;Accession: B4986
C;Accession: S:; Watanabe, H:; Hattori, M:; Sakaki, Y:; Ishikawa, H.
Näture 407, 81-86, 2000
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                    10.0%; Score 249; DB 2; Length 217; 30.4%; Pred. No. 5.5e-10; Live 41; Mismatches 89; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 9.7%; Score 242; DB 2; Length 215; Best Local Similarity 28.1%; Pred. No. 1.6e-09; Matches 56; Conservative 48; Mismatches 83; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443 LEQLY---GSAITLNGDODPYTVF 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  443 LEQLY---GSAITLNGDQD 458
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C,Superfamily: adenylate kinase
                                             Best Local Similarity 30.48
Matches 62; Conservative
                    Query Match
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A; Residues: 1-223 < xUG>
A; Molecule type: mRNA
A; Residues: 1-223 < xUG>
A; Molecule type: mRNA
A; Residues: 1-223 < xUG>
A; Cross-references: UNIPROT: P27144; EMBL: X60673; NID: 928576; PIDN: CA43088.1; PID: 928577
A; Experimental source: frontal-coxtex
A; Note: sequence extracted from NCBI backbone (NCBIN: 109644, NCBIP: 109645)
C; Comment: This isozyme is found in the mitochondrial matrix.
C; Genetics:
A; Gene GDB: AX3
A; Cross-references: GDB: 118988; OMIM: 103030
A; Map position: 9pter-9p13
C; Function:
A; Description: catalyzes the reversible phosphorylation of adenine monophosphate with nu A; Note: GTP is preferred to ATP as a substrate
C; Keywords: ATP; mitochondrial matrix; mitochondrion; P-loop; phosphotransferase
C; Keywords: ATP; mitochondrial matrix; mitochondrial status atypical
F; 85-89/Region: nucleotide-binding motif B #status atypical
F; 85-89/Region: nucleotide-binding motif B #status atypical
F; 85-89/Region: nucleotide-binding motif B #status predicted
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C;Species: Listeria imnocua
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
C;Accession: AB177
C;Accession: A
                                                                                                                                                                                                                                                              nucleoside-triphosphate-adenylate kinase (EC 2.7.4.10) 3 - human N.Alternate names: adenylate kinase 3 (Species: Homo sapiens (man) (Species: Homo sapiens (man) (Species: 17-Apr-1993 #sequence revision 23-Mar-1995 #text_change 09-Jul-2004 (Spate: 17-Apr-1993 #s16380; S16380; S16381 (Spate: 17-Apr-1992 #s16380; S16380; S16381 (Spate: 17-Apr-1992 #s16380; S16380; S16381 (Spate: Spate: S
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29.6%; Pred. No. 2.3e-09;
tive 45; Mismatches 88; Indels 24; Gaps
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Matches 66; Conservative
180 SYYHK 184
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A;Molecule type: DNA
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A;Residues: 1-215 <GLA>
A;Cross-references: UNIPROT:Q927M8; GB:AL592022; PIDN:CAC97986.1; PID:g16415296; GSPDB:Gn.
A;Experimental source: strain Clipl1262
A;Experimental: cource: strain Clipl1262
A;Gene:adk
C;Superfamily: adenylate kinase
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                                                                                                                                                                                                                                                                                                                                                          : :: :|| : | : | | : | | :|| 62 EVINGIVRERLAEDDA-KNGFLLDGFPRIVEQAEBLENILSDLGTELDAVINIEVDKDVL 120
                                                                                                                                                                                                                                                                                                                              330 SLIMKVLSQRLDQQDCIQKGWVLHGVPRDLDQA----HLLNRLGYNPNRVFFLNVPPDSI 385
                                                                                                                                                                                                                                                                                                                                                                                                                  386 MERLTLRIDPVTGERYHLMYKPPPT---MEIQ-ARLLQNPKDAEEQVKLKMDLFYRNSA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                           270 RVLLIGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD
                                                                                                                                                                                                                                                                     12; Gaps
                                                                                                                                                        Length 215;
                                                                                                                                                                                                    87; Indels
                                                                                                                                                          9.5%; Score 237; DB 2;
28.7%; Pred. No. 3.6e-09;
tive 50; Mismatches 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                442 DLEQLY---GSAITLNGDQDPYTVFEYIE 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          completed: March 18, 2005, 15:21:33
                                                                                                                                                                 Query Match
Best Local Similarity 28.7%
Matches 60; Conservative
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OM protein - protein search, using sw model

Run on:

March 18, 2005, 15:08:37; Search time 181 Seconds (without alignments) 1355.171 Million cell updates/sec

Title: Perfect score: Sequence:

US-10-798-773-2 2500 1 MDATIAPHRIPPEMPQYGEE......TYVPEXIESGIINPLPKKIP 479

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters:

1612378 segs, 512079187 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt 03:*
1: uniprot sprot:*
2: uniprot trembl:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. SUMMARIES

096ma6 homo sapien
086fp8 rattus norv
080509 homo sapien
06p618 xenopus tro
08269 oryza sativ
08137 arabidopsis
08138 zea mays (m
091910 leishmania
080711 arabidopsis
08171 arabidopsis
06f37 trypanosoma
08173 trypanosoma
077544 fusobacteri
08905 clostridium
075541 fusobacteri
08905 clostridium
075541 treptococc
08446 burkholderi
06f371 acinetobact
07f371 acinet Description 096MA6
088PB
08N9W9
08PBB
08PBB
08PBB
06PBB
06ZC69
06ZC69
08PZE
06YBG
09N9I
09PYI
09FYQ
06QT32
06QT32
06QT32
06QT32
06QT32
07VI
09FYQ
06QT32
07VI
09FYQ
06QT32 KAD FUSNN KAD CLOTE Q7P5X4 KAD ARCFU KAD STRPN KAD STRR6 Q62HI0 Q63WL6 Q6FD71 KAD_CLOAB Q73F75 KAD STRPY KAD STRA3 * Query Match Length DB Result

P65204 streptococc Q8k8x1 streptococc Q8p2x4 streptococc Q81j22 bacillus ce Q8xhu4 clostridium Q9kb7 vibrio chol Q67jw4 symbiobacter O61069 trypanosoma P39068 bordetella Q7wku8 bordetella Q7wyg bordetella Q8dfm1 vibrio vuln
KAD STRAS KAD STRPB KAD STRPB KAD STRPB KAD CLOPE KAD CLOPE KAD TYBE KAD GOVI KAD GOVI KAD BORPE KAD BORPE KAD BORPE KAD BORPE KAD BORPE KAD BORPE
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212 212 212 212 216 216 220 220 208 218 218
100.3 100.3 100.3 100.3 100.2 100.2
258 258 258 258 257 257 257 257 257 255 255 255 255 255
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## ALIGNMENTS

RESULT 1

SEQUENCE FROM N.A. TISSUE=Brain; MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

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Best Local Similarity 77.0%
Matches 368; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse cDNA sequences.
                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
                                                                                                                                                                     PRELIMINARY;
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                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
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Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hatch F., And Altschul G.W., Hong L., And C., Marusina K., Farmer A.A., Rubin G.M., Hong L., And Scares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.E., Rapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., And S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mulahy S.J., A Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., A Willalon D.K., Murny D.M., Sodergren B.J., Lu X., Gibbs R.A., A Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Multing M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Multing M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Anthing M., Madan A., Schen B.D., Dickson M.C., Ackinger A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., A Jones S.J., Marra M.A.;

Jones S.J., Marra M.A.;

Radeneration and initial analysis of more than 15,000 full-length human and mandal mandal more than 15,000 full-length human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 LIQBRLABEDCIKOGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNIGKRI 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                             GO; GO:0005524; F:ATP binding; IEA.
GO; GO:0005524; F:CAMP-dependent protein kinase regulator act. . .;
GO; GO:0016301; F:Kinase activity; IEA.
GO; GO:0016740; F:transferase activity; IEA.
GO; GO:001765; P:signal transduction; IEA.
InterPro; IPR003117; RIIa.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                Strausberg R.; Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases. Submitted (APR-2003) to the adenylate kinase family. ISMILARITY: Belongs to the adenylate kinase family. EMBL; BC034776; BAB14402.1; -. EMBL; BC034776; AAH34776.1; -. EMBL; BC050576; AAH50576.1; -.
                                                                                                                                                                                                                                                                                                       to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54925 MW; 9E4EABA3F429B731 CRC64;
                                                                                                                                                                                                                              and mouse cDNA sequences."; Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 2500; DB 2; 100.0%; Pred. No. 3.9e-155;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO0094; ADEN'LITKNASE.
ProDom; PD000657; Adenylate_kin; 1.
Kinase; Transferase.
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Best Local Similarity 100.0
Matches 479; Conservative
                                                                                                                                                                                                                                                                                                   Strausberg R.;
Submitted (JUL-2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    479 AA;
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. TISSUE=Brain;
                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                        TISSUE=Brain;
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TISSUB-Testis;

TISSUB-Testis;

RX Strueberg R.L., Feingold B.A., Grouse L.H., Derge J.G., Robled C.12477932; DOI=10.1073/pnas.242603899;

RX Strueberg R.L., Feingold B.A., Grouse L.H., Derge J.G., Schuler G.D., RA Klausner R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Altschul S.F., Zeeberg B., Buetcw K.H., Schaefer C.F., Bhata N.K., Antschul S.F., Jordan H., Moore T., Max S.I., Wang J., Heiseh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Antschenko L., Wather R., Bonaldo M.F., Casavant T.L., Scheetz T.E., Rapleton M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C., R. Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., R. Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., R. Richards S., Worley K.C., Hale S., Garcia A.W., Gay L.J., Hulyk S.W., R. Richards S., Worley K.C., Hale S., Garcia A.W., Sobergues S., Sanchez A., Millalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Rodrigues A., Schwan A., Young A.C., Shevchenko Y., Bouffard G.G., Marra M.A., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., R. Krzywinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein J.E., Ryzwinski M.I., Skalska U., Smailus D.E., Schmerch A., Schein H. Generation and initial analysis of more than 15,000 full-length human R.
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301 QLLKEAVADRTTFGGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLD 360
                                                                       420
                                                                                                                                        420
                                                                                                                                                                                                         421 NPKDAEBQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINFLPKKIP 479
                                                                                                                                                                                                                                                1 MDATIAPHRIPPEMPQYGEENHIPELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI
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                                                                       QAHLLNRLGYNPNRVPFLLNVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQ
                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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-!- SIMILARITY: Belongs to the adenylate kinase family.
EMBL; BC079446; AAH79446.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000850; Ademylate_kin.
Pram; PR00406; ADK; 1.
PRINTS; PR000054; ADEMYLTKNASE.
PRODOM; P0000657; Ademylate_kin; 1.
Propohen; Portein; Kinase; Transferase.
SEQUENCE 479 AA; 54965 MW; D2331D51EFC5A15A CRC64;
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Hypothetical protein MGC94995.
Rattin. Rattin.
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SEQUENCE FROM N.A. TISSUE=Embryo;
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                                                                           SADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQXYRLVNVCCG 300
                                                                                                                                   QLIKEAVADRITFGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLD 360
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RY PUBMED-19702039; DOI=10.1038/ng1285;

RY PUBMED-19702039; DOI=10.1038/ng1285;

RY PUBMED-19702039; DOI=10.1038/ng1285;

RA WARMAREN A., HAYSENIE, K., SALO H., NAGAIK, T., TANAKA T., ISHIS S., WARMAREN A., OBAYSENIE, K., SALO H., NAGAIKAT Y., NASHANIE Y., NAGAHARI X., NAGAHARI X., NAGAHARI X., NAGAHARI X., NAGAHARI X., TENDO Y., NAKAMINA Y., NAGAHARI X., NAGAHARI Y., KANDA Y., TONO Y., TARANARI Y., YANGANIE T., YANGAHIGH H., KINKAWA B., OMUKA Y., NAGAHARI Y., YANGAHIGH T., YANGAHIGH H., MINCHIGH Y., YANGAHIGH Y., WARNARA K., YANGAHIGH Y., WARNARA Y., YANGAHIGH Y., WARNARA K., YANGAHIGH Y., WARNARA K., YANGAHARI Y., YANGAHIGH Y., MINCHIGH Y., YANGAHIGH Y., YANGAHIGH Y., WARNARA K., YANGAHARI Y., YANG
                                                                                                                                                                                            OAHLINRLGYNBURVFFLAVPFDSIMERLTLRRIDPVTGERYHLMYKPPFTMBIQARLLQ 420
                                                                                                                                                                                                                                                       421 NPKDABEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFRYIESGIINPLFKKI 478
                                                                                                                                                                                                                                                                                                               LIQERLAEEDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI
                  DPOTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein FLJ36127
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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REALINE=2238825'; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Altschul S.F., Zeeberg B., Butcow K.H., Schaefer C.F., Shat N.K.,
RA Altschul S.F., Zeeberg B., Butcow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M., Soares M.B., Toehlyuki S., Carninci P., Prange C.,
RA Bana S.S., Loquellano N.A., Peters G.J., Abramson R.D. Mullahy S.J.,
RA Raha S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
R. Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
Rzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Jones S.J., Marra M.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 APFTPRVLILGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                385 IMBRLITERIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xenopus tropicalis (Western clawed frog) (Silurana tropicalis)... Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibiai; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 275;
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%; Pred. No. 1.8e-85;
Matches 275; Conservative 0; Mismatches 0; Indels
-I- SIMILARITY: Belongs to the adenylate kinase family. BMSL, AK031846; BAC40168.1; -- SIMSPS; P431884; IZAK.
GO: GO: 0005524; F:ATP binding; IEA.
GO: GO: 1016301; F:Kinase activity; IEA.
GO: GO: 0016301; F:Kinase activity; IEA.
InterPro; IRRO0856; Adenylate_kin.
                                                                                                                                                                                                                                                                                                                                                   275 AA; 31455 MW; B90C76CF137D6C34 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OGP618 PRELIMINARY, PRT; 485 AA. G6P618, C5-011_2004 (TERMELrel. 27, Created) O5-UUI-2004 (TERMELrel. 27, Last sequence update) O5-UUI-2004 (TERMELrel. 27, Last sequence update) Hypotherical protein MGC76170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                    Pfam; PF00406; ADK; 1.
PRINTS; PR00094; ADENYLTKNASE.
PRODOM; PD000657; Adenylate_kin; 1.
Kinase; Transferase.
SEQUENCE 275 AA; 31455 MW; B90C?
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120

384

444

324

264

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Sasaki T., Matsumoto T., Yamamoto K.;
Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Belongs to the adenylate kinase family.
EMBL; AP004584; BAD09526.1; -.
NCBI_TaxID=39947;
                                                                                                                                                                                                                      SEQUENCE
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EMBL; P
HSSP; I
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Matches
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                                                                                                                                                                                                                                                                                                                                     61 VILGPPASGKTTIAMWLCKHLNSSLLTLENLILNBFSYTATEARRLYLQRKTVPSALLVQ 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NPKDAEEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                      "Ilsoubaryo" (Gerhard D.S.;
Klein S., Gerhard D.S.;
Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases.
Submitted (NOV-2003) to the adenylate kinase family.
I. SIMILARITY: Belongs to the adenylate kinase family.
EMBL; BC062316; AAH62516.1; -.
HSSP; PC05021; TAKE.
GO; GO:0005624; F:ATP binding; IEA.
GO; GO:0006603; F:CAMP-dependent protein kinase regulator act. . .; IEA.
GO; GO:000165; P:GAMP-dependent protein linespro; IPR000850; Adenylate_kin.
Interpro; IPR000850; Adenylate_kin.
Interpro; IPR003117; KIIa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QAHLLNRLGYNPNRVFFLNVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQ
                                                                                                                                                                                                                                                                                                                                                   Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                           1 MDATIAPHRIPPEMPQYGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI
                                                                                                                                                                                                                                                                        Gaps
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
Ehrhartoideae, Oryzeae, Oryza.
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                                                                                                                                                                                                                                               Query Match 56.4%; Score 1409; DB 2; Length 485; Best Local Similarity 54.1%; Pred. No. 7.5e-84; Matches 259; Conservative 98; Mismatches 122; Indels (
                                                                                                                                                                                     PEGUI, PF00406; ADK; 2.

PRINTS; PR00094; ADENYLTKNASE.

PRODOM; PD000657; Adenylate_kin; 2.

Hypothetical protein; Kinase; Transferase.

Hypothet 485 AA; 54786 MW; C2810A7CIEBBAD6C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JUL-2004 (TrEMBLrel. 27, Created) 05-JUL-2004 (TrEMBLrel. 27, Last sequence update) 05-JUL-2004 (TrEMBLrel. 27, Last annotation update) putative adenylate kinase, chloroplast (ATP-AMP
               and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
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                                                      SEQUENCE FROM N.A.
                                                                  IISSUE-Embryo;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  288 LAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQ 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93 IKSKYGLVHISAGDLLRABIAAGSENGKRAKEFMEKGQLVPDEIVVNMVKERLLQPDAQE 152
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Structural analysis of Arabidopsis thaliana chromosome 5. VIII. Sequence features of the regions of 1,081,958 bp covered by seventeen physically assigned P1 and TAC clones.";

[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                408 PPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQLYGSAIT-LNGDQDPYTVFEYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   228 RVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arabidopsis tnaliana (Mouse-ear Cress).
Bukaryota, Viridiplantes, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
Spermatophyta; Magnoliophyta; eudicotyledons; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.7.4.3) (ATP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-CV. Columbia;
MEDLINE-99156233; PubMed-10048488;
Asamizu E., Sato S., Kaneko T., Nakamura Y., Kotani H., Miyajima
       GO:0005524; F.ATP binding; IEA.
GO:0016301; F.kinase activity; IEA.
GO:0016776; F.phosphotransferase activity, phosphate grou.
GO:0016770; F.transferase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                 Match 14.9%; Score 372.5; DB 2; Length 290; Local Similarity 34.3%; Pred. No. 2e-16; local Similarity 41; Mismatches 99; Indels 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-OCT-2003 (Rel. 42, Created)
10-OCT-2003 (Rel. 42, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Probable adenylate kinase 2, chloroplast precursor (EC
                                                                                                                                                                                                                                                                                                     290 AA; 31816 MW; 058918D67A71E8D2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AMP transphosphorylase).
OrderedLocusNames=At5g47840; ORFNames=MCA23.18;
Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283 AA.
                                                                                                                                                                           PRINTS; PRO0094; ADENTITKNASE.
PRODOM; PD000657; Adenylate_Kin; 1.
TIGREAMS; TIGRO1131; adk; 1.
PROSITE; PS00113; ADENTIATE_KINASE; 1.
Kinase; Transferase.
                                                                                                              InterPro; IPR000850; Adenylate_kin.
InterPro; IPR006259; Adenyl_kin_sub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : : | | |
273 DKQLTSSLDKK 283
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467 ESGIINPLPKK 477
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                                                                                                                                                                 Pfam; PF00406; ADK,
905082; 1AKE
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Q9FIJ7;
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Zea mays (Maize)
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SEQUENCE FROM N.A.

STRAILE-CV. COLUMBIA:

WEDLINE=2054850; PubMed=14593172; DOI=10.1126/science.1088305;

Wamada K., Lim J., Dale J.M., Chen H., Shinn P., Palm C.J.,

NEDLINE=2054850; PubMed=14593172; DOI=10.1126/science.1088305;

Wanda K., Lim J., Dale J.M., Chen H., Shinn P., Palm C.J.,

Mouthwick A.M., WH H.C., Kim C.J., Nguyen M., Pham P.K., Cheuk R.F.,

Miranda M., Quach H.L., Tripp M., Chang C.H., Lee J.M., Toriumi M.J.,

Chan M.M., Tang C.C., Onodera C.S., Deng J.M., Akiyama K., Ansari Y.,

Arakawa T., Banh J., Banno F., Bower L., Brooks S.Y., Carninci P.,

Arakawa T., Banh J., Banno F., Bower L., Brooks S.Y., Carninci P.,

Ayasakizaki Y., Johnson-Hopson C., Hsuan V.W., Idda K., Karnes M.,

Khan S., Koesema B., Ishida J., Jiang P.X., Ones T., Kawai J.,

Kamiya A., Meyers C., Nakajima M., Narusaka M., Seki M., Sakurai T.,

Satou M., Tamse R., Vaysberg M., Wallender E.K., Wong C., Yamamura Y.,

Yuan S., Shinozaki K., Davis R.W., Theologis A., Ecker J.R.,

"Empirical analysis of transcriptional activity in the Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270 RVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD 329
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R REML; AV043305; AAK83647.1; -
R EMBL; AY043305; AAK83647.1; -
R EMBL; AY043305; AAK83647.1; -
R EMBL; AY043305; AAK83647.1; -
R HSSP; P43188; IZAK.
R INTER-PROFO STORY ADRY, INTER-PROFO STORY AND STORY A
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                                                                                                                                                                                                                                                                                                                                                                                                                                             'Match 14.6%; Score 364.5; DB 1; Length ; Local Similarity 36.4%; Pred. No. 6.4e-16; les 76; Conservative 39; Mismatches 93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71 79 ATP (By similarity).
283 AA; 31452 MW; 1461D1A36F2DF4E9 CRC64;
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ID KADC_MAIZE
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222 AA.

PRT;

STANDARD;

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MEDLINE=98088957; PubMed=9428681;
MIGA K., Graffueller R., Wagner E., Schulz G.E.;
Wild K., Graffueller R., Wagner E., Schulz G.E.;
Wild K., Graffueller R., Wagner E., Schulz G.E.;
Wild C., Graffueller R., Wagner E., Schulz G.E.;
Eur. J. Blochen. 255:1326-131(1997).

-I- FUNCTION: This small ubiquitous enzyme is essential for maintenance and cell growth. The maize enzyme also works with CMP,
-I- CMTALYTIC ACTIVITY: ATP + AMP = 2 ADP.
-I- CMTALYTIC ACTIVITY: ATP + AMP = 2 ADP.
-I- MASS SPECTROMETRY: WW=24867; METHOD=Electrospray; RANGE=1-222;
NOTHELLULAR LOCATION: Chloroplast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOTE-REF. IN WW-2486/; METHOD-Electrospray; RANGE-1-222;
NOTE-REF. I.

                                                                                                                                                                                      Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Mamoliophyta, Lillopsida, Poales, Poaceae, PACCAD clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-94298837; PubMed=8026505;
Schiltz E., Burger S., Grafmueller R., Deppert W.R., Haehnel
Wagner E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                              "Primary structure of maize chloroplast adenylate kinase.";
Eur. J. Biochem. 222:949-954(1994).
P43188;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Adenylate kinase, chloroplast (EC 2.7.4.3) (ATP-AMP
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                                                                                                                                                                                                                                                                                                                    SEQUENCE, AND MASS SPECTROMETRY.
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154
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                                                                                                                         transphosphorylase).
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77 LCK------HINS-SLITLENLILNEFSYTATEARRLYLORKTVPSALLVQLIQE 124
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                                                                                                                                           FFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLN 379
41 HDLLERPIPPQIVIAGPPGSGKGTQCQAIVERFGVVHISSGDLLRAEVAAGTEVGKWAET 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 YGEENHIPELMONMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRIVILGPPASGKTTIAMW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Buğlenozoa; Kinetoplastida; Trypanosomatidae; Leishmania.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO, GO:0005524, P:ATP binding; IEA.
GO, GO:0016301, P:kinase activity; IEA.
GO; GO:0016776; P:phosphotransferase activity, phosphate grou.
GO; GO:00167740; P:transferase activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hilbert H., Wedler H., Wedler E., Duesterhoeft A., Ivens A.C., Quail M., Rajandream M.A., Barrell B.G., Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Belongs to the adenylate kinase family.
EMBL, AL354333; CABB9615.1; -.
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llarity 31.3%; Pred. No. 1.8e-14;
Conservative 54; Mismatches 104; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chan H.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "A physical map of the Leishmania major Friedlin genome.";
Genome Res. 8:135-145(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269 AA; 30060 MW; BAB658834D6984E1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-2000 (TrEMBLrel. 15, Last sequence update) 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Friedlin;
MEDLINE-99146435; PubMed-9477341;
Ivens A.C., Lewis S.M., Bagherzadeh A., Zhang L.,
Smith D.F.;
                                                                                                                                                                                                                                                                                                                                             269 AA
                                                                                                                                                                                                       438 RNSADLEQLYGSAI-TLNGDQDPYTVFE 464
                                                                                                                                                                                                                              TIGREAMS, TIGRO1351, adk; 1.
PROSITE; PS00113; ADENYLATE KINASE; 1.
Kinase; Transferase.
SEQUENCE 269 AA; 30060 MW; BAR65RR
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InterPro; IPR006259; Adenyl kin sub.
Pfam; PF00406; ADK; 1.
PRINTS; PR00094; ADENYLTKNASE.
                                                                                                                                                                                                                                                                                                                                                                                      Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Possible adenylate kinase
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ses 81; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=L6294.05;
Leishmania major.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=5664;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 LDNKL---EYLOKHNIAQLTEHIVRNIMEDLPENP---------IKYV-- 40
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                                                                                                                                                                                                                                                                                               330 SLIMKVLSORLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERL 389
                                                                                                                                                                                                                                                                                                                                                                          390 TLRRIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQLYGS 449
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                                                                                                                                                                                                                    270 RVILLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD
                                                                                                                                                                                                                                               Trypanosoma cruzi.
Bukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
NCBI_TaxID=5693;
                                                                                                                                                                                   Gaps
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GO; GO:0006524; F:ATP binding; IEA.

GO; GO:0016301; F:kinase activity; IEA.

GO; GO:0016705; F:phosphotransferase activity, phosphate grou.

GO; GO:0016740; F:transferase activity; IEA.

InterPro; IPR00850; Adenylate kin.

InterPro; IPR00850; Adenyl kin. sub.

InterPro; IPR007862; ADK_lid.

Pfam; PF05191; ADK_lid.

PFINTS; PR00094; ADENYLIKNASE.

PRINTS; PR00094; ADENYLIKNASE.

PRINTS; PR00094; Adenylate_kin; 1.
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                                                                                                                                       ; Score 363.5; DB 1; Length 222; ; Pred. No. 5.5e-16; 40; Mismatches 90; Indels 1;
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                                                                                                      24867 MW; 19257324F8B7630D CRC64;
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Last annotation update)
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Similarity .30.6%; Pred. No. 6.7e-16;
32; Conservative 53; Mismatches 106;
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PROSITE, PS00113; ADENVLATE KINASE; 1.
Kinase, Transferase.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
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                                                                                                                                                 Match 14.5%;
Local Similarity 37.3%;
Les 78; Conservative 4
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05-JUL-2004 (TrEMBLrel.
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222 AA;
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332 LMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERLTL 391
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272 LLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDSL
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Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
NCBI_TaxID=5693;
                                                                                                                                                                                                                                               U1-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Adenylate kinase-like.
Arabidopsis thaliana (Mouse-ear cress).
Arabidopsis thaliana (Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicacee; Arabidopsis.
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Last sequence update)
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InterPro; IPR006259; Adenyl kin sub.
Pfam; PR00406; ADK; 1.
PRINTS; PR00094; ADENYLTKNASE.
PRODOM; PR000657; Adenylate kin; 1.
TIGRPAM9; TIGR01351; adk; 1.
PROSITE; PS00113; ADENYLATE KINASE; 1.
                                                                              255 ISAYSDVMVKIDANRPKEVVFE 276
                                             444 EQLYGSA-ITLNGDODPYTVFE 464
                                                                                                                                                                                                           PRT;
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05-JUL-2004 (TrEMBLrel.
05-JUL-2004 (TrEMBLrel.
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Name=AdK4;
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62; Conserv
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SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=3702;
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Q6QT32;
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Matches
                                                                                                                                                             RESULT 11
Q9FYQ7
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                              264 NAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEK 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GEIYHTTFDWPPESE--IQNRLMVPEDISELETAQXLLEYHRNIVRVIPSYPKILKVISA 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      324 EMAVPOSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFD 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135 GSLVPDEIVIAMVAGRLSREDAKEHGWLLDGFPRSFAQAQSLDKLNVKPDIFILLDVPDE 194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL, AV070456; AAL49859.1; -
EMBL, AV131763; AAL49859.1; -
EMBL, AV131763; AAL49859.1; -
EMBL, AV131763; AAL49859.1; -
EMBL, AV131763; AAL49859.1; -
GO; GO: 0005224; F:ATP binding; IEA.
GO; GO: 0016776; F:phosphotransferase activity, phosphate grou. . .; IEA.
GO; GO: 0016776; F:phosphotransferase activity, phosphate grou. . .; IEA.
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Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yamada K., Liu S.X., Sakano H., Pham P.K., Banh J., Chung M.K., Yanada K., Liu S.X., Chusch H.L., Toriumi M., Yu G., Bowser L., Carninci P., Chen H., Cheuk R., Hayashizaki Y., Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Kam C., Lam B., Lin J., Miranda M., Narusaka M., Nguyen M., Palm C.J., Sakurai T., Satou M., Saki M., Shinn P., Southwick A., Shinozaki K., Davis R.W., Ecker J.R., Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
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                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana (Mouse-ear cress).
Bukaryocks; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicacees; Arabidopsis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      588 AA; 65738 MW; 3AA0B81ABFC4B62B CRC64;
                                                                                                                                                                                                                                                                                             01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Putative adenylate Kinase.
                                                                                                                                                                                                                                                      588 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PP00406; ADK; 1.
PRINTS; PR00094; ADENYLTKNASE.
ProDom; PD000657; Adenylate kin; 1.
TIGRPAMB; TIGR01351; adk; 1.
Kinase; Transferase.
                                                                                                                                                                                                                                                      PRT;
                                                                                                                                    NRPEAAITKDITEYLO-NH 266
                                                                                           243 DOPCVDVFYQALTYVQSNH 261
                                                                                                                                                                                                                                                      PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                             Name=At5g35170
                                             189
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                   77 LCKHLNSSLLTLENLILNEFSYTATEARRL---YLQRKTVPSALLVQLIQERLAEEDCIK 133
                                                                                                                                                                                                                                               134 QGWILDGIPBIREOALRIQILGITPRHVIVLSAPDTVLIERNLGKRIDPQTGEIYHTTFD 193
                                                                                                                                                                                                                                                                                                           194 WPPESEIQNRLMVPED-ISELETAQKILLEYHRNIVRVIPSYPKILKVISADQPCVDVFYQ 252
                                                                                                                                                                                                                                                                                                                       17 YGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRIVILGPPASGKTTIAMW 76
                                                                                                                                                                                                               20
                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                         DB 2; Length 260;
         Bountier D. A. Miranda M.R., Canepa G.E., Pereira C.A.;
Bountier G. Miranda M.R., Canepa G.E., Pereira C.A.;
Bounitted (JAN-2004) to the EMBL/GenBank/DDBJ databases.
C. -1. SIMILARITY: Belongs to the adenylate kinase family.
R. BERL, AYS-6734; AAS-20418.1; -.
R. HSSP; PO5082; JAKE.
R. GO; GO:0005524; F:ATP binding; IEA.
R. GO; GO:0016301; F:kinase activity; IEA.
R. GO; GO:0016740; F:transferase activity; IEA.
R. Pfam; PF00406; ADK; 1.
R. Probom; PR000950; Adenylate_kin.
R. Probom; PR000657; Adenylate_kin; 1.
R. Kinase; Transferase.
SEQUENCE 260 AA; 29610 MW; OCCA67290386081F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                       28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2004 (Rel. 45, Last annotation update)
Adenylate kinase (EC 2.7.4.3) (AIP-AMP transphosphorylase).
Name-adk; OrderedLocusNames=TTE2271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Thermoanaerobacter tengcongensis.
Bacteria, Firmicutes, Clostridia, Thermoanaerobacteriales,
Thermoanaerobacteriaceae, Thermoanaerobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -1- CATALYTIC ACTIVITY: APP + AMP = 2 ADP.
-1- SUBUNIT: Monomer (By similarity).
-1- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-1- SIMILARITY: Belongs to the adenylate kinase family.
                                                                                                                                                        12.5%; Score 313.5; DB 2; Length 30.2%; Pred. No. 1.2e-12; ive 52; Mismatches 108; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       221 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                     STANDARD;
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QBR7X4;
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 330 SLIMKVISQRIDQQDÇIQKGWVIHGVPRDLDQAHLINRL----GYNPNRVFFLNVPFDSI 385
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=HTEB31 / DSM 14371 / JCM 11309;
MEDLINE=22220767; PubMed=12235376; DOI=10.1093/nar/gkf526;
Takami H., Takaki Y., Uchiyama I.;
Takami I., Taka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-0CT-2003 (Rel. 42, Created)
10-0CT-2003 (Rel. 42, Last sequence update)
25-0CT-2004 (Rel. 45, Last annotation update)
Adenylate kinase (EC 2.7.4.3) (ATP-AMP transphosphorylase).
Name-adk; OrderedLocusNames=OB0140;
Occanobacillus iheyensis.
Bacteria: Firmicutes; Bacillales; Bacillaceae; Occanobacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic Acids Res. 30:3927-3935 (2002).

-!- FUNCTION: This small ubiquitous enzyme is essential for elementenance and cell growth.

maintenance and cell growth.

-!- CATALYTIC ACTIVITY: ATP + AMP = 2 ADP.

-!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).

-!- SUBCELLULAR LOCATION: Cytoplasmic kinase family.

-!- SIMILARITY: Belongs to the adenylate kinase family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 221;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Probom; PD00065/; ... adk; 1.
TIGRFAMs; TIGR01351; adk; 1.
PROSITE; PS00113; ADENYLATE KINASE; 1.
PROSITE; PS00113; ADENYLATE KINASE; 1.
ATP. Complete proteome; Kinase; Transferase.
ATP. ATP. ATP. (By similarity).
15 ATP. (By similarity).
16 ATP. (By similarity).
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28.6%; Pred. No. 2.6e-11;
tive 61; Mismatches 79;
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SEQUENCE FROM N.A.
SEQUENCE FROM 11309;
                                                                                                                                                                                                                                                                                                                                    HSSP; P27142; iZIN.
HAMAP; MF 00235; -; 1.
Interpro; IPR006559; Adenyl kin gub.
Interpro; IPR000650; Adenylate_Kin.
Interpro; IPR007862; ADK_lid.
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Pfan, PF05191; ADK lid; 1.
PRINTS; PR00094; ADENYLTKNASE.
PRODOM; PD0000657; Adenylate_kin; 1.
                                                                                                                                                                                                                                                                                     EMBL; AE013171; AAM25415.1; -.
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us-10-798-773-2.rup

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233 YPKILKVISADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKY 292
                                                                                                                                                                                                                                                                                                                                                                                             293 RLVNVCCGQLLKEAVADRITFGELLQPFFEKEMAVPDSLLMKVLSQRLDQQDC1QKGWVL 352
                                                                                                                                                                                                                                                                                                                                                                                                                                      353 HGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTM 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           413 BIQ--ARLLQNPKDAEEQVKLKMDLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGI 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    194 DVALCERLVQRDADFHESIAKRLAQYYESIEGVKKHLGAVIEV---VDARKSVEDVERDI 250
                                                                                                                                                                                                                                                                                                                          Query Match
11.4%; Score 286; DB 2; Length 260;
Best Local Similarity 27.2%; Pred. No. 7.8e-11;
Matches 67; Conservative 51; Mismatches 116; Indels 12; Gaps
                   InterPro; IPR000850; Adenylate_kin.
Propost PP00406; ADK; 1.
Probom; PD000657; Adenylate_kin; 1.
Kinae; Transferase.
SEQUENCE 260 AA; 29339 MW; 8F15B485E68B1FC7 CRC64;
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).

EMBL, APO0453; BAC12096.1; --
HSSP, P27142; IZIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271 VLLIGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRITFGELIQPFFEKEMAVPDS 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             331 LLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQA----HLLNRLGYNPNRVPFLNVPFDSIM 386
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MEDINELS 2789168; PubMed=12907728; DOI=10.1093/nar/gkg673;

MEDINELS 2789168; PubMed=12907728; DOI=10.1093/nar/gkg673;

ME B1-Sayed N.M.A., Gheddin E., Song J., MacLeod A., Bringaud F.,

B1-Sayed N.M.A., Gheddin E., Song J., Hou L., Taylor S., Tweedie A.,

B1-Sayed N.M.A., Check W. A., Mason T., Hannick L., Caler E.,

B1-Sayed N.M. Aken S., Utterback T., Hass B., Koo H.L., Umayam L., Suh B.,

Non Aken S., Utterback T., Hass B., Koo H.L., Umayam L., Suh B.,

Gerrard C., Leech V., Ol R., Zhou S., Schwartz D., Feldblyum T.,

Adams M.D., Fraser C.M., Donelson J.B.;

Masser S., Tait A., Turner M.R., Ullu E., White O., Melville S.,

Adams M.D., Fraser C.M., Donelson J.B.;

Nucleic Acids Res. 31:4856-486(2003).

I. SIMILARITY: Belongs to the adenylate kinase family.

REMBL, ABOL7170; AAQ16024-1;

REMBL, ABOL7170; AAQ16024-1;

RO; GO:0016301; F.Kinase activity; IEA.

GO; GO:0016301; F.Kinase activity; IEA.
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Adenylate kinser. 2560;
Stryames-Tb927.2.5660;
Trypanosoma brucel.
Bukaryota, Buglenozoa, Kinetoplastida; Trypanosomatidae; Trypanosoma.
                                                                                                                                                                     | HAWAP: MESEY, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 11.5%; Score 288; DB 1; Length 215; Local Similarity 33.0%; Pred. No. 4.5e-11; les 69; Conservative 46; Mismatches 82; Indels
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01-0CT-2003 (TrENBLrel. 25, Last sequence update)
01-MAR-2004 (TrENBLrel. 26, Last annotation update)
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March 18, 2005, 15:11:03 ; Search time 49 Seconds (without alignments) 729.733 Million cell updates/sec
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2500
1 MDAIAPHRIPPEMPQYGEE......XTVFEXIESGIINPLPKKIP 479
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Perfect score:
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Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Issued_Patents_AA:*
1 /cgn2_6/ptodata/1/iaa/5A COMB.pep:*
2 /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
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4 /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
5 /cgn2_6/ptodata/1/iaa/PcTUS COMB.pep:*
6 /cgn2_6/ptodata/1/iaa/PacTUS COMB.pep:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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SUMMARIES	OT.	US-10-141-634-2	US-10-141-634-4	US-09-328-352-5675	110-412		US-09-513-999C-7572	US-09-134-001C-3289	US-09-710-279-1580	US-08-829-027-5	US-09-225-366-5	US-09-949-016-9245	US-09-489-039A-12712	US-09-543-681A-7057	US-08-829-027-3	US-09-225-366-3	US-09-252-991A-21097	US-09-149-476-377	US-08-829-027-1	US-09-225-366-1	US-09-540-236-3142	US-08-829-027-4	US-09-225-366-4	US-09-134-000C-5802	US-09-949-016-10565	- 1	US-09-438-185A-246	US-09-107-532A-3675	
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US-09-248-796A-18000	US-08-879-561-5	US-09-902-540-13555	US-08-879-561-11	TIS-08-848-017708	US-08-879-561-12	US-09-248-796A-17698	115-09-270-767-44420	113-00-100-41-20	111-M2CT-0CT CO DO	US-US-DI3-999C-5448	US-09-248-796A-16968	US-09-252-991A-30204	US-08-643-034A-2	US-08-648-650A-2	7 1000 010 00 011	US-U9-183-266A-2	US-09-902-540-11337	TIS-09-248-528-15	07-070-07-00-00-00-00-00-00-00-00-00-00-	US-09-549-108-15
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28	29	30	31	32	33	34	35	36	7.5	5 6	38	39	40	41	4.2	7 :	43	44	4	0

## ALIGNMENTS

APPLICANT: Yu, Xuanchuan
APPLICANT: Yu, Xuanchuan
APPLICANT: Xie, Qiongshu
APPLICANT: Xie, Qiongshu
APPLICANT: Abuin, Alejandro
APPLICANT: Walke, D. Wade
TITLE OF INVENTION: No. 6734010e1 Human Kinases and Polynucleotides Encoding the Same
FILE REPERBARGE: LEX-0344-035A
CURRENT FILING DATE: 2002-05-08
PRIOR APPLICATION NUMBER: US 60/289,727
PRIOR APPLICATION NUMBER: US 60/289,727
NUMBER OF SEQ ID NOS: 4-05-09
SOFTWARE: PASESEQ for Windows Version 4.0 ; Sequence 2, Application US/10141634; Patent No. 6734010; GENERAL INFORMATION: LENGTH: 479
; TYPE: PRT
; ORGANISM: homo sapiens
US-10-141-634-2

Gaps ; 0 Query Match
100.0%; Score 2500; DB 4; Length 479;
Best Local Similarity 100.0%; Pred. No. 4.4e-251;
Matches 479; Conservative 0; Mismatches 0; Indels 0;

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61 VILGPPASGKTTIAMWLCKHLNSSLLTLENLILNEFSYTATEARRLYLQRKTVPSALLVQ 120 61 VILGPPASGKTTIAMWLCKHLNSSLLTLENLILNEFSYTATEARRLYLQRKTVPSALLVQ 120 180 181 DPQTGEIYHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI 240 QLLKEAVADRITFGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLD 360 60 9 1 MDATIAPHRIPPEMPQYGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI 121 LIQERLABEDCIKQGWILDGIPETREQALRIQTLGITPRHVIVLSAPDTVLIERNLGKRI 301 à 셤 ð 셤 8 g ઠે g ò g ð

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FOR DIAGNOS
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APPLICANT: Lynn Doucette-Stamm et al.
TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
CURRENT APPLICATION NUMBER: US /09/583,110
CURRENT FILING DATE: 1998-06-30
PRIOR PILING DATE: 1998-06-30
PRIOR PILING DATE: 1998-05-12
PRIOR PILING DATE: 1998-05-12
PRIOR PILING DATE: 1997-07-02
NUMBER OF SEQ ID NOS: 5322
SEQ ID NO 4124
TENGTH. 212
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64 VSDELIIGLVKERIAQPDCV-NGCIFDGFPRTIPQARALEKEGISIDHVIEIDVPDEBIV 122
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Sequence 4765, Application US/09107433
Patent NO. 68007444
GENERAL INFORMATION: A DOUGETTE-Stamm and David Bush
APPLICANT: Lynn A DOUGETTE ACID AND AMINO ACID
TITLE OF INVENTION: WOCHERC ACID AND AMINO ACID
THERAPEUTICS
THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             271 VLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDS
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CORRESPONDENCE ADDRESS:
ADDRESSEE: GENOME THERAPEUTICS CORPORATION STREET: 100 Beaver Street
CITY: Waltham STATE: Massachusetts
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 31.6%; Pred. No. 5.5e-20;
Matches 67; Conservative 46; Mismatches 85
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4124, Application US/09583110 Patent No. 6699703 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGANISM: Streptococcus pneumoniae US-09-583-110-4124
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Sequence 4, Application US/10141634
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Sequence 4, Application
Better No. 6734010
GENERAL INFORMATION:
APPLICANT: Xie, Qiongshu
APPLICANT: Walke, D. Wade
APPLICANT: Walke, D. Wade
TITLE OF INVENTION: NO. 6734010e1 Human Kinases and Polynucleotides Encoding the Same
FILE REPERENCE: LEX-0344-USA
CURRENT APPLICATION NUMBER: US/80/1141, 634
CURRENT FILING DATE: 2001-05-09
FRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
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GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: MUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: GATC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
NUMBER OF SEQ ID NOS: 8252
SEQ ID NO 5675
LENGTH: 222
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                                                               QAHLLNRLGYNPNRVFFLNVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTMEIQARLLQ 420
                                                                                                          4 FFWRIILLGPPGAGKGTQAQLICKRYNIPQISTGDMLRAAIREGTELGLKAKSVWESGGL
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Best Local Similarity 29.6%; Pred. No. 9.8e-21;
Matches 66; Conservative 47; Mismatches 93;
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19.6%; Score 491; DB 4; I
Best Local Similarity 100.0%; Pred. No. 3.2e-43;
Matches 94; Conservative 0; Mismatches 0;
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US-09-328-352-5675
Sequence 5675, Application US/09328352
Patent No. 6562958
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US-09-328-352-5675
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ORGANISM: homo sapiens
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271 VLLIGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPDS 330
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 10.0%; Score 249; DB 4; Length 66; Best Local Similarity 74.2%; Pred. No. 2.7e-18; Matches 49; Conservative 1; Mismatches 4; Indels
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9.9%; Score 247.5; DB 3
Best Local Similarity 28.9%; Pred. No. 2.6e-17;
Matches 57; Conservative 46; Mismatches 75
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US-09-134-001C-3289
                                                                                                                           LOCATION: 41
COTHER INFORMATION: Xaa=1le or Asn FEATURE:
NAME/KEY: UNSURB
LOCATION: 46
OTHER INFORMATION: Xaa=Leu or Val
                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: UNSURE
LOCATION: 51
OTHER INFORMATION: Xea=Pro or Ser
                                                                                                                                                                                                                                                                                                                                                                 ; LOCATION: 52
; OTHER INFORMATION: Xaa=Asp or Glu
US-09-513-999C-7572
                                                        TYPE: PRT
ORGANISM: Homo sapiens
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61 HLHRDS 66
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SOFTWARE: Patent.pm
SEQ ID NO 7572
                                                                                                                NAME/KEY: UNSURE
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NAME/KEY: UNSURE
LOCATION: 52
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10.9%; Score 273; DB 4; Length 216;
Best Local Similarity 31.6%; Pred. No. 5.6e-20;
Matches 67; Conservative 46; Mismatches 85; Indels 14; Gaps
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Retent No. 6783961
GENERAL INFORMATION:
APPLICANT: Dunas Milne Edwards, J.B.
APPLICANT: Dunalert, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION Expressed Sequence Tags and Encoded Human Proteins.
PATENT NO. 6783961
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT PLING DATE: 2000-02-24
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
                                                                                                                                                                  APPLICATION DATA:

FILING DATE: May 12, 1998

FILING DATE: May 12, 1997

APPLICATION NUMBER: 60/051553

FILING DATE: JULY 2, 1997

ATTORNEY/AGENT INFORMATION:

NAME: Ariniello, Pamela Deneke

REGISTRATION NUMBER: 40, 489

REGISTRATION NUMBER: 40, 489

TELECOMMUNICATION INFORMATION:

TELEPHONE: (781)893-8077

TELEPHONE: (781)893-8077

TELEPHONE: (781)893-8077

TYPE: AMINO ACIG

TYPE: AMINO ACIG

TYPE: AMINO ACIG

TOPOLOGY: linear

MOLECULE TYPE: protein

HYPOTHETICAL: YES

ORIGINAL SOURCE:

ORGANISM: Streptococcus pneumoniae

FEATURE:

FEATURE:
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                                                                                SOFTWARE: <Unknown>
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/107,433
FILING DATE: 30-Jun-1998
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; NAME/KEY: misc_feature
; LOCATION: (B) LOCATION 1...216
SEQUENCE DESCRIPTION: SEQ ID NO: 4765:
US-09-107-433-4765
                   MEDIUM TYPE: CD/ROM ISO9660
COMPUTER: <UNKNOWN>
OPERATING SYSTEM: <UNKNOWN>
      COMPUTER READABLE FORM:
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3: Diskette
IBM Compatible
SYSTEM: DOS
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                                                                    FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
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Matches 66; Conservative
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MEDIUM TYPE: Diskett
             single
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FILING DATE: He CLASSIFICATION:
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; CLONE: 28577
US-08-829-027-5
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: KINMERLY, WILLIAM JOHN
TITLE OF INVENTION: STAHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
FILLE REFERENCE: 191480US
FILLE REFERENCE: 191480US
CURRENT APPLICATION NUMBER: US/09/110,279
CURRENT FILING DATE: 2000-11-09
PRIOR FILING DATE: 1999-11-09
NUMBER OF SEQ ID NOS: 4472
SOFFWARE: PATENTIN Ver. 2.1
ENGTH: 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ) OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: amino acid sequence
US-09-710-279-1580
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Patent No. 5885160
GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: NOVEL MITOCHONDRIAL ADENYLATE KINASE
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
9.7%; Score 242.5; DB 4; Length 2
Best Local Similarity 28.4%; Pred. No. 8.3e-17;
Matches 56; Conservative 47; Mismatches 75; Indels
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SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/829,027
                                                                                                                                                   Sequence 1580, Application US/09710279
Patent No. 6703492
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182 ILEYYNNKGVLKNIDGS 198
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                                                                189 ILEYYNNKGVLKNIDGS 205
                                436 ---FYRNSADLEQLYGS 449
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                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
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IBM Compatible
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MEDIUM TYPE: Diskett
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US-09-710-279-1580
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STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67 HVITRLAMSELEN----RRGQHWLLDGFPRTLGQARALDKI-CEVDLVISLNIPFETLKD 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             210 RVLLIGPVGSGKSLQAALLAQKXRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                   Length 223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOVEL MITOCHONDRIAL ADENYLATE KINASE: 5
                                                                                                                                                                                                                                                                                                                                                                                                                 88; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           182 IELYKSRGVLHQFSGTETNKIWPYVYTLP----SNKITPIQSK 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444 BOLYGSAITL---NGDQD-----PYTVFEYIESGIINPLPKK 477
                                                                                                                                                                                                                                                                                                                                                                            9.6%; Score 240; DB 2;
29.6%; Pred. No. 1.6e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FASTSEQ for Windows Version 2.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/225,366
                                                                                                                                                                                                                                                                                                                                                                                                                 45; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Incyte Pharmaceuticals, Inc.
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0256 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/829,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Hillman, Jennifer L. APPLICANT: Shah, Purvi TITLE OF INVENTION: NOVEL MITOCI NUMBER OF SEQUENCES: 5 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5, Application US/09225366
Patent No. 6001624
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Patent No. 660570, Application US/09543681A
Patent No. 6605709
GENERAL INFORMATION
TITLE OF INVERNION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PROTEUS MIRABIL.
TITLE OF INVERNION: DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVERNION: DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVERNION: DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVERNION: 2709.1002-001
CURRENT PELIGATION NUMBER: US/09/543,681A
PRIOR FILING DATE: 1999-04-09
NUMBER OF SEQ ID NOS: 8344
SEQ ID NO 7057
LENGTH: 223
LENGTH: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 12712, Application US/09489039A
Patent No. 6610836
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA TITLE OF INVENTION: PNEUMOWIAB FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US/09/489, 039A
CURRENT PILIOR DATE: 1099-01-27
PRIOR FILING DATE: 1999-01-29
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
ILENGTH: 225
                     330 SLIMKVLSQRLDQQDCIQKG--WVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIME 387
                                                                388 RITLRRIDPVTGERYHLMYKPPPTMEIQ----ARLLONPKDAEEQVKLKMDLFYRNSADL 443
                                                                                                                                                                                        57 VPRIVILGPPASGKTTIAMWLCKHLNSSLLTLENLI---LNEFSYTATEARRLYLQRKTV 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114 PSALLVQLIQERLAEEDCIKQGWILDGIPETREQALRIQTIGITPRHVIVLSAPDTVLIE 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            174 RNLGKRIDPQTGEIYHTTFDWPPESBION-----RLMVPEDISBLETAQKLLEYHRNIVR 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 9.5%; Score 238; DB 4; Length 225; Best Local Similarity 29.9%; Pred. No. 2.6e-16; Matches 56; Conservative 46; Mismatches 75; Indels :
                                                                                                                                                                                                                                                                       444 EQLYGSAITL---NGDQD-----PYTVFEYIESGIINPLPKK 477
                                                                                                                                                                                                                                                                                                                        232 IBLYKSRGVLHQFSGTETNKIWPYVYTLF----SNKITPIQSK 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Proteus mirabilis
US-09-543-681A-7057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229 VIPSYPK 235
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189 LIGYYTK 195
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US-09-543-681A-7057
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| Sequence 9245 Application US/09949016
| Pattent No. 6812339|
| GENERAL INFORMATION:
| APPLICANT: VENTER, J. Craig et al.
| TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
| TITLE OF INVENTION: POLYMORPHER: US/09/949, 016
| TITLE OF INVENTION: ONDERS: 000-04-14
| FILE REFERENCE: CLOO1307 |
| CURRENT PILING DATE: 2000-04-14
| PRIOR PILING DATE: 2000-10-20
| PRIOR PELICATION NUMBER: 60/231,768
| PRIOR PELICATION NUMBER: 60/231,768
| PRIOR PELICATION NUMBER: 60/231,498
| PRIOR PILING DATE: 2000-09-08
| PRIOR PILING DATE: 2000-09-08
| PRIOR PILING DATE: 2000-09-08
| RIOR FILING DATE: 2000-09-08
| NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         270 RVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 330 SLIMKVLSQRLDQQDCIQKG--WVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIME 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67 HVITRLMMSELEN----RRGQHWLLDGFPRTLGQAEALDKI-CEVDLVISLNIPFETLKD 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388 RITLRRIDPVTGERYHLMYKPPPTMEIQ----ARLLQNPKDAEEQVKLKMDLFYRNSADL 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270 RVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMAVPD 329
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
9.6%; Score 240; DB 4; Length 273;
Best Local Similarity 29.6%; Pred. No. 2.2e-16;
Matches 66; Conservative 45; Mismatches 88; Indels ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       444 EQLYGSAITL---NGDQD-----PYTVFEYIESGIINPLPKK 477
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                        NAME: Billings, Lucy J.
REGISTRATION UNWBER: 36,749
REFERENCE/DOCKET NUMBER: PF-05
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 5: SEQUENCE CHARACTERAGGICS: LENGTH: 223 amino acids TYPE: amino acids STRANDEDNESS: single TOPOLOGY: linear IMMELATE SOURCE: LIBRARY: Genbank CLONE: 28577
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FASTSEQ 1
SEQ ID NO 9245
LENGTH: 273
TYPE: PRT
ORGANISM: Human
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US-09-949-016-9245
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US-09-225-366-5
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330 SLIMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIMERL 389
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270 RVLLIGPVGSGKSLOAALLAOKYRLVNVCCGOLLKEAVADRITFGELIQPFFEKEMAVPD 329
                     390 TLRRIDPVTGERYHLMYKPPPTMEIQ----ARLLQNPKDAEEQVKLKMDL------
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                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/09225366

Sequence 3, Application US/09225366

Patent No. 6001624

GENERAL INFORMATION:

APPLICANT: Hillman, Jennifer L.

APPLICANT: Shah, Purvi

TITLE OF INVENTION:

NUMBER OF SEQUENCES: 5

CORRESPONDENCE ADDRESS:

ADDRESSEE Incyte Pharmaceuticals, Inc.

STREET: Balo Alto

CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 233.5; DB 3;
; Pred. No. 7.8e-16;
37; Mismatches 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FASTSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/225,366
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CLASSIFTCATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/829,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0;
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEPAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 30.4%;
Matches 59; Conservative 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM Compatible OPERATING SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 227 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                     :|| ||
186 YYRKKGVLETFSGT 199
                                                                                                                                                                                                                            436 FYRNSADLEQLYGS 449
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
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US-09-225-366-3
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                                                                                                                                                                                                                                                                            267 FTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMA 326
                                                                                                                                                                              327 VPDSILLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDSIM 386
                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels 17;
                                                                        11;
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                                ; Score 236.5; DB 4; Length 223; ; Pred. No. 3.7e-16; 41; Mismatches 82; Indels 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
APPLICANT: Shah, Purvi
APPLICANT: Shah, Purvi
TITLE OF INVENTION: NOVEL MITOCHONDRIAL ADENYLATE KINASE
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 9.3%; Score 233.5; DB 2; Best Local Similarity 30.4%; Pred. No. 7.8e-16; Matches 59; Conservative 37; Mismatches 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READBLE FORM:

MEDIUM TYPE: Diskette

(MEDIUM TYPE: Diskette

COMPUTER: IBM COMPATIBLE

COMPUTER: IBM COMPATIBLE

OPERATING SYSTEM: DOS

SOFTWARE: FastSEG for Windows Version 2.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/829,027

FILING DATE: Herewith

CIASSIFICATION: 435

PRIOR APPLICATION NUMBER:

FILING DATE: APPLICATION NUMBER:

ATTORNEY/AGENT INFORMATION:

NAMME: Billings, Lucy J.

REGISTRATION NUMBER: 36,749

REGISTRATION NUMBER: 36,749

REGISTRATION NUMBER: 136,749

TELECOMMUNICATION INFORMATION:

TELEPHONE: 415-85-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/08829027
Patent No. 5856160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 227 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                      Query Match
Best Local Similarity 28.7%
Matches 54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                    440 SADLEQLY 447
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CLONE: 217576
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Sequence 2, Appli
Sequence 3120, Ap
Sequence 3627, Ap
Sequence 25, Appli
Sequence 22, Appl
Sequence 870, Appl
Sequence 870, Appl
Sequence 488, Appl
Sequence 4, Appli
Sequence 4, Appli
Sequence 286668,
Sequence 286668,
                                                                                                                March 18, 2005, 15:20:58; Search time 149 Seconds (without alignments) 1062.612 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                US-10-798-773-2
2500
1 MDATIAPHRIPPEMPQYGEE......XTVFEYIESGIINPLFKKIP 479
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1: /cgm2 6/prodata/2/pubpaa/USO7_PUBCOMB.pep:*

3: /cgm2 -6/ptodata/2/pubpaa/NCT_NW PUB.pep:*

3: /cgm2 -6/ptodata/2/pubpaa/USO6_NW PUB.pep:*

5: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

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6: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

7: /cgm2 -6/ptodata/2/pubpaa/NCO6_NW Pubp:*

8: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

9: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

10: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

11: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

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13: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

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16: /cgm2 -6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*

16: /cgm2 -6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*

16: /cgm2 -6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*

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19: /cgm2 -6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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5 US-10-094-749-3020

10-10-10-044-327-2

5 US-10-311-034-25

4 US-10-110-34-25

4 US-10-16-800-22

US-09-764-868-817

US-09-764-868-1179

US-09-764-868-1179

US-10-141-634-4

7 US-10-141-634-4

7 US-10-44-599-268668

6 US-10-437-963-120944
                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                    1401741 segs, 330541175 residues
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                                                                           protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 200000000
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Perfect score:
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                                                                                                                   Run on:
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Sequence 2, Application US/10141634
| Publication No. US2030008365A1
| Sublication No. US2030008365A1
| Sublication No. US2030008365A1
| APPLICANT: Xie, Qiongshu
| APPLICANT: Xie, Qiongshu
| APPLICANT: Xie, Qiongshu
| APPLICANT: Abuin, Alejandro
| APPLICANT: Abuin, Alejandro
| APPLICANT: Abuin, Alejandro
| APPLICANT: Malke, D. Wade
| TITLE OF INVENTION: No. US20030008365A1e1 Human Kinases and Polymucleotides Encoding
| FILE REFERENCE: LEX-0344-USA
| CURRENT FILING DATE: 2002-05-08
| FRICA PAPLICANTON NUMBER: US 60/289,727
| WINDER: QOINGS OF US O Sequence 47870, A Sequence 57019, A Sequence 67019, Sequence 172021, Sequence 172021, Sequence 172021, Sequence 17219, A Sequence 5318, A Sequence 5318, A Sequence 52019, A Sequence 52019, A Sequence 61152, A Sequence 61154, A Sequence 52316, A Sequence 52316, A Sequence 52317, A A ö 9 1 MDATIAPHRIPPEMPQYGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI Gaps 0; Query Match 100.0%; Score 2500; DB 14; Length 479; Best Local Similarity 100.0%; Pred. No. 1.3e-222; Matches 479; Conservative 0; Mismatches 0; Indels 0; S. US-10-424-559-191515

S. US-10-425-114-47870

S. US-10-425-114-47870

S. US-10-425-114-57019

G. US-10-425-114-57019

G. US-10-425-114-57019

S. US-10-282-122A-4894

G. US-10-282-122A-4894

G. US-10-282-122A-73744

S. US-10-282-122A-73744

S. US-10-282-122A-73019

S. US-10-282-122A-72019

S. US-10-282-122A-73111

S. US-10-282-122A-73111

S. US-10-282-122A-7318

S. US-10-282-122A-7318 ALIGNMENTS TYPE: PRT
ORGANISM: homo sapiens
US-10-141-634-2 SEQ ID NO 2 Query Match 8

120

9

61 VILGPPASGKTTIAMWICKHINSSLLTLENLILNEFSYTATEARRIYLQRKTVPSALLVQ

| MDATIAPHRIPPEMPQYGEENHIFELMQNMLEQLLIHQPEDPIPFMIQHLHRDNDNVPRI

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GENERALI INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Xie, Qiongshu
APPLICANT: Abuin, Alejandro
APPLICANT: Malke, D. Welejandro
APPLICANT: Walke, D. Welejandro
APPLICANT: Walke, D. Welejandro
APPLICANT: Walke, D. Welejandro
APPLICANT: Walke, D. Welejandro
TITLE OF INVENTION: NOVel Human Kinases and Polynucleotides Encoding the Same
TITLE OF INVENTION: NOVEL LEX. 0344-035-01
PRIOR APPLICATION NUMBER: US/10/141,634
PRIOR APPLICATION NUMBER: US 60/289,727
PRIOR PILING DATE: 2001-05-09
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 SADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 VILGPPASGKTTIAMMLCKHLNSSLLTLENLILNEFSYTATEARRLYLQRKTVPSALLVQ 120
                                                                                                                                                                VILGPPASGKTTIAMMLCKHLNSSLLTLENLILNEFSYTATEARRLYLQRKTVPSALLVQ 120
                                                                                                                                                                                                                                                                                                                        61 VILGPPASGKTTIAMMLCKHLNSSLLTLENLILNEFSYTATEARRLYLORKTVPSALLVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIQERLABEDCIKQGWILDGIPETREQALRIQTIGITPRHVIVLSAPDTVLIERNIGKRI
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                                                                                                                                                                                                        QLLKEAVADRITTFGELIQPFFEKEMAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLD
                                                                                       181 DPQTGBIXHTTFDWPPBSBIQNRLMVPBDISELETAQKLLEYHRNIVRVIPSYPKILKVI
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Best Local Similarity 100.0%; Pred. No. 1.3e-222;
Matches 479; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 2, Application US/10798773; Publication No. US20050019885A1; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 479
TYPE: PRT
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                                                                                                                                    QLIKEAVADRITFGELIQPFFEKEMAVPDSLIMKVLSQRLDQQDCIQKGWVLHGVPRDLD 360
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                                                                          SADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAALLAQKYRLVNVCCG
                                                         DPQTGEIXHTTFDWPPESEIQNRLMVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVI
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Best Local Similarity 100.0%; Pred. No. 1.36-222;
Matches 479; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SOEL, WACHING
APPLICANT: YOSHIKAWA, YOSHIKAWA,
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NAGAHARI, KENNI
APPLICANT: NAGAHARI, KENNI
APPLICANT: NAGHARI, KENNI
APPLICANT: NASUHO, YASHIKO
APPLICANT: NASUHO, YASHIKO
APLICANT: NASUHO, YASHIKO
FILE REFERENCE: 064335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT PILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR APPLICATION NUMBER: JP 2001-328381
SOFTWARE: PALENTING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARE: PALENTIN VET. 2.1
SOFTWARE: PALENTIN VET. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3020, Application US/10094749 Publication No. US20030219741A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUGIYAMA, TOMOYASU
OTSUKI, TETSUJI
WAKAMATSU, AI
SATO, HIROYUKI
ISHI, SHIZUKO
YAMAMOTO, JUN-ICHI
ISONO, YUUKO
HIO, YUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAGAI, KEIICHI
IRIE, RYOTARO
TAMECHIKA, ICHIRO
SEKI, NAOHIKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTSUKA, KAORU
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: ISOGAI, TAKAO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
CRGANISM: Homo sapiens
US-10-094-749-3020
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| APPLICANT: KIAH, Farrah A. |
| APPLICANT: KIAH, Farrah A. |
| APPLICANT: KIAH, Farrah A. |
| APPLICANT: AZIMZAL, Yalda |
| APPLICANT: AZIMZAL, Yalda |
| APPLICANT: POLICKY, Jannifer L. |
| APPLICANT: POLICKY, Jannifer L. |
| APPLICANT: GRETHER, Megan |
| APPLICANT: GRETHER, Sajeev |
| APPLICANT: BATRA, Sajeev |
| APPLICANT: BATRA, Sajeev |
| TITLE OF INVENTION: HUMAN KINASES |
| TILE OF INVENTION: PL-0125 PCT |
| CURRENT APPLICATION NUMBER: US/10/311,034 |
| CURRENT APPLICATION NUMBER: 60/212,073; 60/215,651; 60/216,605; 60/218,372, 60/228,056 |
| PRIOR APPLICATION NUMBER: 60/212,073; 2000-06-33; 2000-07-07; 2000-07-13; 2000-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          205 MVPEDISELETAQKILEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTN 264
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           265 APFTPRVLLIGPVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIOPFFEKE 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            325 MAVPDSLLMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVFFDS 384
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NAME/KEY: misc feature

OTHER INFORMATION: Incyte ID No. US20040023242A1 621293CD1
US-10-311-034_28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                445 QLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
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                      GANDHI, Ameena R.
FRIBOULEY, Catherine M.
CHAWLA, Narinder K.
YAO, Monique G.
Li, Dyung Aina M.
GREENWALD, Sara R.
RAMKUMAR, Jayalaxmi
GRIFFIN Jennifer A.
KEARNEY, Liann
BURFORD, Neil
NGUYEN, Danniel B.
TANG, Y. Tom
TANG, Y. Tom
TANG, Y. Tom
                                                                                                                                                                                                                                                                                                                                                                                                     HAFALIA, April
ARVIZU, Chandra S.
GURURAJAN, Rajagopal
LO, Terence P.
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THORNTON, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 52
SOFTWARE: PERL Program
SEQ ID NO 25
LENGTH: 275
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ORGANISM: Homo sapiens
                                                                                             APPLICANT
APPLICANT
APPLICANT
APPLICANT
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APPLICANT
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                                                                       361 QAHLLINRLGYNRNRVFFLAVPFDSIMERLTLRRIDPVTGERYHLMYKPPPTWEIQARLLO 420
                                                                                                                                                                                                         205 MVPEDISELETAQKLLEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTN 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MAVPDSILIMKVLSQRLDQQDCIQKGWVLHGVPRDLDQAHLLNRLGYNPNRVFFLNVPFDS 384
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 57.2%; Score 1429; DB 15; Length 275; Best Local Similarity 100.0%; Pred. No. 1e-123; Matches 275; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION, NO. US20030236392Alel full length cDNA
FILE REPERBACE: H1.A0105
CURRENT APPLICATION NUMBER: US/10/104,047
PRIOR FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: NUMBER:
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: PATCHIN VET. 2.1
FEMAND: 201
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                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
US-10-104-047-3627
US-10-104-047-3627
Sequence 3627, Application US/10104047
Publication No. US20030236392A1
GENERAL INFORMATION:
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18-10-311-034-25
1 Sequence 25, Application US/10311034
1 Publication No US20040023242A1
2 GENERAL INPOFMATION:
1 APPLICANT: VIC, Henry
2 APPLICANT: LIAL, Preeti
3 APPLICANT: BANDMAN, Olga
5 APPLICANT: BANDMAN, Olga
6 APPLICANT: APPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-104-047-3627
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267 FTPRVILLGBVGSGKSLQAALLAQKYRLVNVCCGQLLKEAVADRTTFGELIQPFFEKEMA 326
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                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: SITE
LOCATION: (228)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (234); LOCATION: (234); OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-764-868-870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  207 PEDISELETAQKILIEYHRNIVRVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTNAP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        147 QALRIQTLGITPRHVIVLSAPDTVLIERNIGKRIDPQTGEIYHTTFDWPPESBIQNRLMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PT232
CURRENT APPLICATION NUMBER: US/09/764,868
CURRENT FILING DATE: 2001-01-17
Prior application data removed - refer to PALM or file wrapper NUMBER OF SEQ ID NOS: 1510
SEQ ID NO 870
SEQ ID NO 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 46.6%; Score 1166; DB 9; Length 236; Best Local Similarity 100.0%; Pred. No. 2e-99; Matches 225; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327 VPDSILIMKVI.SQRLDQQDCIQKGWVLHGVPRDLDQAHLIMRIGYN 371
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22.1%; Score 553; DB
Best Local Similarity 100.0%; Pred. No. 4.2
Matches 106; Conservative 0; Mismatches
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US-09-764-868-868
                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                    LENGTH: 236
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Best Local
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                                                                                                                                GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Chun, Miyoung
APPLICANT: Chun, Miyoung
APPLICANT: Appeller-Libermann, Rata Alexandra
APPLICANT: Rapeller-Libermann, Rotalel B.
TITLE OF INVENTION: No. US20030092116Alel Nucleic Acid Sequences Encoding
TITLE OF INVENTION: Packets Rates Phospholipid Scramblase-Like, DNA
TITLE OF INVENTION: Pragmentation Factor-Like, Phosphatidylserine Synthase-Like Molecules and Uses Therefor
TITLE OF INVENTION: And Arbase-Like Molecules and Uses Therefor
TITLE OF INVENTION: And Arbase-Like Molecules and Uses Therefor
TITLE OF INVENTION: And Arbase-Like Molecules and Uses Therefor
TITLE OF INVENTION: And Arbase-Like Molecules and Uses Therefor
TITLE OF INVENTION: And Arbase-Like Molecules and Uses Therefor
TITLE OF INVENTION UNMERR: 09/790,179
PRIOR APPLICATION NUMBER: 09/790,189
PRIOR APPLICATION NUMBER: 60/185,946
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: 60/185,947
PRIOR APPLICATION NUMBER: 60/185,947
PRIOR APPLICATION NUMBER: 60/185,947
PRIOR APPLICATION NUMBER: 60/186,234
PRIOR APPLICATION NUMBER: 60/186,234
PRIOR APPLICATION NUMBER: 60/186,234
PRIOR PILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: 60/186,234
PRIOR PILING DATE: 2000-02-21
PRIOR PILING DATE: 2000-02-10
PRIOR PILING DATE: 2000-02-21
PRIOR PILING DATE: 2000-0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73 IAMWLÇKHINSSILTILENLILNEFSYTATEARRLYLQRKTVPSALLVQLIQBRLAEEDCI 132
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Pred. No. 6.9e-112;
1; Mismatches 0;
                                                      Sequence 22, Application US/10165800 Publication No. US20030092116A1 GENERAL INFORMATION:
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Best Local Similarity 99.6%;
Matches 253; Conservative 1
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US-10-165-800-22
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generic 868, Application US/09764868
; Sequence 868, Application William
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: NUMBER: US/09/764,868
; CURRENT PELING DATE: 2001-01-17
; Prior application data removed - refer to PALM or file wrapper; NUMBER OF SEQ ID NOS: 1510
; SOFTWARE: PatentIn Ver. 2.0
; SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       DLFYRNSADLEQLYGSAITLNGDODPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DLFYRNSADLEQLYGSAITLAGDQDPYTVFEYIESGIINFLPKKIP 113
                                                                                                                                                                                                                                                                                                               Length 113;
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Pred. No. 4.2e-43;
Pred. No. 9. Indels
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US-09-764-868-870 ; Sequence 870, Application US/09764868 ; Patent No. US20020168711A1

RESULT 7

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Sequence 288668, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Kovalic David K
APPLICANT: Kovalic David K
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(5322)B
FILE REFERENCE: 38-21(5322)B
CURRENT PRILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
LENGTH: 307
LENGTH: 307
LENGTH: 307
                                                                  APPLICANT: Xie, Qiongshu
APPLICANT: Abuin, Alejandro
APPLICANT: Abuin, Alejandro
APPLICANT: Abuin, Alejandro
APPLICANT: Abuin, Alejandro
TITLE OF INVENTION: Novel Human Kinases and Polynucleotides Encoding the Same
FILE REFERENCE: LEX.0344-USA
CURRENT APPLICATION WUMBER: US/10/198,773
CURRENT FILING DATE: 2004-03-11
PRIOR APPLICATION WUMBER: US/10/141,634
PRIOR APPLICATION WUMBER: US 60/289,727
PRIOR PILING DATE: 2001-05-09
RIOR FILING DATE: 2001-05-09
RIOR FILING DATE: 2001-05-09
SUGNERS FASESEQ for Windows Version 4.0
SUGNERS FASESEQ for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MERLTLERIDPVTGERYHLMYKPPPTMEIQARLLQNPKDAEEQVKLKMDLFYRNSADLEQ 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57 LRYHTH----LPSTPKTLKV--------NCSTSEPL--KVMISGAPAS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%; Pred. No. 1.8e-37;
Matches 94; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Clone ID: PAT_MRT3847_8462C.1.pep
US-10-424-599-268668
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 LYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 94
Publication No. US20050019885A1
                   GENERAL INFORMATION:
APPLICANT: Yu, Xuanchuan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Glycine max
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-798-773-4
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APPLICANT: Xie, Qiongshu
APPLICANT: Abun, Alejandro
APPLICANT: Abun, Alejandro
APPLICANT: Malke, D. Wade
TITLE OF INVENTION: NO. US20030008365Alel Human Kinases and Polynuclectides Encoding
FILE REFERENCE: LEX-0344-USA
CURRENT APPLICATION NUMBER: US 60/289,727
PRIOR PPLICATION NUMBER: US 60/289,727
PRIOR PILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 4
SSETWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 94
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                                                                                                                                                          APPLICANT: Rosen et al.
ITILE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FITLE OF INVENTION: NUMBER: US/09/764,868
CURRENT APPLICATION NUMBER: US/09/764,868
CURRENT FILING DATE: 2001-01-7
Prior application data removed - refer to PALM or file wrapper: NUMBER OF SEQ ID NOS: 1510
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      434 DLFYRNSADLEQLYGSAITLNGDQDPYTVFEYIESGIINPLPKKIP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 19.6%; Score 491; DB 14; Length 94; l Similarity 100.0%; Pred. No. 1.8e-37; 94; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 113;
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22.1%; Score 553; DB 9; I
Best Local Similarity 100.0%; Pred. No. 4.2e-43;
Matches 106; Conservative 0; Mismatches 0;
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                                                                                   ; Sequence 1179, Application US/09764868
; Patent No. US20020168711A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 4, Application US/10141634; Publication No. US20030008365A1; GENERAL INFORMATION:
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US-10-798-773-4
; Sequence 4, Application US/10798773
                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-09-764-868-1179
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ORGANISM: homo sapiens
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US-10-141-634-4
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Best Local S
Matches 94
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APPLICANT: Liu, Jingdong
APPLICANT: Liu, Jingdong
APPLICANT: Shou, Yihua
APPLICANT: Sovelic, David K.
APPLICANT: Screen, Steven B
APPLICANT: Screen, Steven B
APPLICANT: Tabask, Jack B
APPLICANT: Tabask, Jack B
APPLICANT: Tabask, Jack B
APPLICANT: Tabask, Jack B
APPLICANT: Paplants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: Nucleic And Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313) B
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NOS: 73128
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Best Local Similarity 37.3%; Pred. No. 6.66-25;
Matches 78; Conservative 40; Mismatches 90; Indels 1;
                                                                                                                                                                                                                                                                                                            16;
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                                                                                                                                                                                                                                                            Length 284;
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                                                                                                                                                                                         ; OTHER INFORMATION: Clone ID: PAT_MRT3847_14959C.1.pep
US-10-424-599-191515
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US-10-425-114-47870
                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 34.5%; Pred. No. 9.8e-26;
Matches 79; Conservative 45; Mismatches 899
FILE REFERENCE: 38-21 (53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 191515
LENGTH: 284
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US-10-425-114-47870
Sequence 47870, Application US/10425114
; Sequence 47870, US20040034888A1
; GENERAL INFORMATION:
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APPLICANT: Kovalito, David K.
APPLICANT: Kovalito, David K.
APPLICANT: Applicant: Applicant: Applicant: Cao, Yongwei
APPLICANT: Cao, Yongwei
APPLICANT: Wu, wei
APPLICANT: Barbazuk, Brad
APPLICANT: Barbazuk, Brad
APPLICANT: Bring
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE OF INVENTION: NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 120944
LENGTH: 290
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| Sequence 191515, Application US/10424599
| Publication No. US20040031072A1
| GENERAL INFORMATION:
| APPLICANT: La Rosa Thomas J
| APPLICANT: Kovalic David K
| APPLICANT: Zhou Yihua
| APPLICANT: Zhou Yihua
| APPLICANT: Zoo Yongwei H
| TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
| TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPPTWEIQARLLONPKDAEEQVKLKMDLFYRNSADLEQLYGSAIT-LNGDQDPYTVFEYI 466
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                                                                  BRYHLMYKPPPIWEIOARLLONPKDAEEQVKLKMDLFYRNSADLEQLYGSAIT--LNGDQ 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228 RVIPSYPKILKVISADQPCVDVFYQALTYVQSNHRTNAPFTPRVLLLGPVGSGKSLQAAL
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US-10-437-963-120944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
14.9%; Score 372.5; DB 16;
Best Local Similarity 34.3%; Pred. No. 9e-26;
Matches 86; Conservative 41; Mismatches 99;
                                                                                                                                                                                                                                                              RESULT 13
US-10-437-963-120944
US-10-437-963-120944, Application US/10437963
; Padleation No. US20040123343A1
; GENERAL INFORMATION:
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DKQLTSSLDKK 283
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ORGANISM: Oryza sativa
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Search completed: March 18, 2005, 15:33:59 Job time: 153 secs

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| cgn2_6/ptodata/2/pubpna/PGT NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/PGT NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO6_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO6_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
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Copyright (c) 1993 - 2005 Compugen Ltd.
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                                                                                                                                          OM nucleic - nucleic search, using sw model
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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Maximum DB seq length: 200000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	Sequence 1, Appli Sequence 1, Appli Sequence 1381, Ap Sequence 17, Appl Sequence 167, Appl Sequence 21, Appl Sequence 51, Appl Sequence 51, Appl Sequence 257, Appl Sequence 257, Appl Sequence 23, Appl Sequence 16667, Appl Sequence 16667, Appl
SUMMARIES	US-10-141-634-1 US-10-798-773-1 7 US-10-094-749-1381 3 US-10-104-047-1657 US-10-104-067-1657 US-09-764-868-257 US-09-764-868-257 US-09-764-868-257 US-09-764-868-257 US-09-166-800-23 US-09-918-995-16667
DB	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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Hublication No. US20030219741A1 GENERAL INFORMATION: APPLICANT: ISOGAL, TAKAO APPLICANT: OTSUKI, TEXAO APPLICANT: OTSUKI, TEXAO APPLICANT: OTSUKI, TEXAUI APPLICANT: SATO, HIROYUKI APPLICANT: ISHID, SHIZUKO APPLICANT: ISHID, SHIZUKO APPLICANT: ISONO, YUNKO APPLICANT: ISONO, YUNKO APPLICANT: NAGAL, KRICHI APPLICANT: NAGAL, KRICHI APPLICANT: REE, RYOTRO APPLICANT: SEKI, NAOHIKO APPLICANT: SEKI, NAOHIKO APPLICANT: OTSUKA, MOCHUKI APPLICANT: OTSUKA, MOCHUKI APPLICANT: OTSUKA, MOCHUKI APPLICANT: OTSUKA, MOCHUKI APPLICANT: MAGHARI, KRUNI APPLICANT: MAGHARI, KRUNI APPLICANT: MAGHANI	TITLE OF INTENTION NOVEL FULL-LENGTH CDNA   TITLE OF INTENTATION NOVEL FULL-LENGTH CDNA   TITLE PETERRACE: 084335/04375/0494,749   CURRENT APPLICATION NUMBER: US/10/094,749   CURRENT FILING DATE: 2002-03-12   FALOR APPLICATION NUMBER: 60/350,435   FALOR FILING DATE: 2002-01-24   FRIOR FILING DATE: 2002-01-4   FRIOR FILING DATE: 2003-01-4   FRIOR FILING DATE: 2013-01-4   FRIOR FILING DATE: 2013-01-4   FRIOR FILING GAPIERS   FRIOR FILING GAPIE	Query Match   100.0%; Score 1440; DB 17; Length 1579;   Best Local Similarity 100.0%; Pred. No. 0;     Matches 1440; Conservative 0; Mismatches 0; Indels 0; Gaps 0;     ArdGACGCCACTATCGCCCGCACTATCCCCCCCGAGTACGCGGAGGAGGGGGGGG	90 90 121	OY         181 GTAATATTAGGTCCACCCCCCTCAGGGAAAACAATAGCAATGGGCTCTGCAAACAT 240           IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		3 6 8 6
421 481 481 541 601 661	Oy   721 AGTGCTGACCAGCCATGTGGGCGCTCTGCGGCTCTGACCTATGTCCAAAGCAAC 780	961 961 961 1021	QY         1081 CAGGCACCTGCACCCTGGGCTACAATCCCAACAGGTGTTTTTCCTGAATGTG 1140           Db         1081 CAGGCACACCTGCTGAACCGCCTGGGCTACAATCCCAACAGGGTGTTTTTCCTGAATGTG 1140           QY         1141 CCATTTGATTCCATCATGAAGCGGCTGAACTGTGAAATTGATCCACTGGGGAA 1200           Db         1141 CCATTTGATTCCATCATGAAGCGGCTGAACTCTGAGAAATTGATCCACTGGGGAA 1200           Db         1141 CCATTTGATTCCATCATGAAGCGGCTGAACTCTGAGAAAATTGATCCAGTCACTGGGGAA 1200	QY         1201 AGGTACCACCTCATGTACAAGCCACCTCCCACCATGGAGATCCAGGCTCGCGCG         1260           ID	21 GCTGACTTGGAGCAGTTGTATGGGTCGGCCATCACCCTCAATGGGGACCCATAC	1381 SULT 3 -10-094-749- Sequence 138

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TYPE: DNA ORGANISM: Homo sapiens
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541 GACCCTCAAACTGGAGAGATTTATCACACCATTTGACTGGCCACCCGAATCTGAATCTGAAATCTGACTGCCACCACCACAGAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATTAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAATCTGAAA
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Publication No. US20040203097A1
GENERAL INFORMATION:
APPLICANT: INCYTE CRPORATION; YUE, Henry;
APPLICANT: LU, Dyung Aina M.; AZIMAAI, Yalda;
APPLICANT: DIG, Li; LEE, Ernestine A.;
APPLICANT: HAFALIA, April J.A.; BECHA, Shanya D.;
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APPLICANT: TANG, Y. Tom; LAL, Preeti G.;
APPLICANT: GRIFFIN, Jennifer A.; GURURAJAN, Rajagopal;
APPLICANT: RAMKUNAR, Jayalaxmi; ELLIOOT, Vicki S.;
APPLICANT: RANKINARA, Jayalaxmi; ELLIOOT, Vicki S.;
APPLICANT: ARANIZU, Chandra S.; LUC, Wen;
APPLICANT: TRAN, Uyen K.; CHAMLA, Narinder K.;
APPLICANT: GANDHI, Ameena R.; YAO, Monique G.;
APPLICANT: GANDHI, Ameena R.; YAO, Monique G.;
APPLICANT: ALCHAN, PARTAB A.; BAUGHN, Mariah R.;
APPLICANT: BOROWSKY, Mark L.; ZEBARJADIAN, Yeganeh;
APPLICANT: RICHARDSON, Thomas W.; MARQUIS, Joseph P.;
APPLICANT: RICHARDSON, Thomas W.; MARQUIS, Joseph P.;
APPLICANT: RICHARDSON, Thomas W.; MARQUIS, Joseph P.;
APPLICANT: RICHARDSON, THOMSER: US/10/478,146
CURRENT APPLICATION NUMBER: US 60/293,665
PRIOR FILING DATE: 2001-6-24
PRIOR PELLING DATE: 2001-05-24
PRIOR PELLING DATE: 2001-06-15
PRIOR PELLING DATE: 2001-06-15
PRIOR PELLING DATE: 2001-06-15
PRIOR PELLING DATE: 2001-07-06
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PRIOR PELLING DATE: 2001-07-19
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1440; Conservative 0; Mismatches
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OTHER INFORMATION: Incyte ID No: 72063274CB1
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US-10-104-047-1657  Sequence 1657, Application US/10104047  PUBLication No. US20030236392A1  GENERAL INFORMATION:  APPLICANT: HELIX RESEARCH INSTITUTE  TILE OF INVENTY DATE:  FILE REFERENCE: H1-A0105  CURRENT PEPLICATION NUMBER: US/10/104,047  FRICK REPRING DATE: 2002-03-25  PRIOR FLING DATE: 2002-03-25  NUMBER OF SEQ ID NOS: 4096  SOFTWARE: PatentIn Ver. 2.1  SEQ ID NO 1657  LENGTH: 1619  TYPE: URA  COGANISM: H0-00 sapiens	Beat Local Similarity   33.34   Pred, No. 0, 10   Matches 1272; Conservative   0, Mismatches   0, Indels 92; Gaps   1;	OY 797 CGTTCACCCCAAGGTGCTGCTGCTGTGTGGGCAAAAGTCTGCAGGCCG 856
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Pred. No. 0;
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PRIOR APPLICATION NUMBER: 60/186,234
PRIOR FILING DATE: 2000-02-29
PRIOR APPLICATION NUMBER: 09/781,677
PRIOR PILING DATE: 2001-02-21
PRIOR FILING DATE: 2001-02-21
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 4.06
SEQ ID NO 21
LENGTH: 1452
                                                                                                                                                                                                                                                                      71.7%;
86.5%;
                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 86.5
Matches 1246; Conservative
                                                                                                                                                                                                          , NAME/KEY: CDS
; LOCATION: (219)...(995)
US-10-165-800-21
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APPLICANT: Chun, Miyoung
APPLICANT: Gluckmann, Maria Alexandra
APPLICANT: Gluckmann, Maria Alexandra
APPLICANT: Gluckmann, Maria Alexandra
APPLICANT: Kapeller-Libermann, Rosana
APPLICANT: Mayers, Rachel Er.
TITLE OF INVENTION: No. US20030092116Alel Nucleic Acid Sequences Encoding
TITLE OF INVENTION: Pragmentation Factor-Like, Phosphatidylserine Synthase-Like,
TITLE OF INVENTION: and ATPRSe-Like Molecules and Uses Therefor
TITLE OF INVENTION: and ATPRSe-Like Molecules and Uses Therefor
TITLE OF INVENTION: and ATPRSe-Like Molecules and Uses Therefor
TITLE OF INVENTION: and ATPRSe-Like Molecules and Uses Therefor
TITLE OF INVENTION: and ATPRSe-Like Molecules and Uses Therefor
TITLE OF INVENTION: 0001-02-02
PRIOR APPLICATION NUMBER: 09/790, 838
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2001-02-22
PRIOR FILING DATE: 2001-02-22
PRIOR FILING DATE: 2001-02-22
PRIOR FILING DATE: 2001-02-23
PRIOR FILING DATE: 2001-02-29
PRIOR FILING DATE: 2000-02-29
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                                                            CTGTGGCAGATAGGACCACGTTTGGCGAGCTCATCCAGCCCTTCTTGAAAAGGAGATGG
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                                                                                                                                                                                              Length 1223;
                                                                                                                                                                                       Query Match 71.4%; Score 1027.6; DB 9; Length Best Local Similarity 95.6%; Pred. No. 0; Matches 1153; Conservative 0; Mismatches 10; Indels
       i LOCATION: (1181)
i OTHER INPORMATION: n equals a,t,g, or c
NAME/KEY: SITE
LOCATION: (1191)
i OTHER INPORMATION: n equals a,t,g, or c
NAME/KEY: SITE
LOCATION: (1193)
i OTHER INPORMATION: n equals a,t,g, or c
NAME/KEY: SITE
i LOCATION: (1203)
i OTHER INPORMATION: n equals a,t,g, or c
NAME/KEY: SITE
i LOCATION: (1203)
i OTHER INPORMATION: n equals a,t,g, or c
i LOCATION: (1218)
i OTHER INPORMATION: n equals a,t,g, or c
i US-09-764-868-257
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                                                        CAACTGCTGAAAGAGGCTGTGGCAGATAGGACCACGTTTGGCGAGCTCCAGCCCCTTC 962
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                                                                                     CAACTGCTGAAAGAGGCTGTGGCAGATAGGACCACGTTTGGCGAGCTCATCCAGCCCTTC
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FREEDEL NO. USZOOZO168711A1

APPLICANT: ROBER et al.

TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PVZZ.

CURRENT APPLICATION NUMBER: US/09/764,868

CURRENT APPLICATION NUMBER: US/09/764,868

CURRENT APPLICATION NUMBER: US/09/764,868

CURRENT APPLICATION NUMBER: US/09/764,868

WUMBER OF FILING DATE: 2001-01-17

Prior application data removed - refer to PALM or file wrapper: SOFTWARE: PatentIN Ver. 2.0

SEQ ID NO 25;

TENGTHARE: PatentIN Ver. 2.0

SEQ ID NO 25;

FEATURE:

NAME/KEY: SITE

JOCATION: (307)

OTHER INFORMATION: n equals a,t,g, or c

NAME/KEY: SITE

JOCATION: (307)

OTHER INFORMATION: n equals a,t,g, or c

NAME/KEY: SITE

JOCATION: (3107)

OTHER INFORMATION: n equals a,t,g, or c

NAME/KEY: SITE

JOCATION: (1163)

OTHER INFORMATION: n equals a,t,g, or c
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FILE REPERENCE: P1-0125 PCT
CURRENT APPLICATION NUMBER: US/10/311,034
CURRENT PELLON DATE: 2002-12-10
PRIOR PELLON NUMBER: 60/212,073; 60/213,467; 60/215,651; 60/216,605; 60/218,372;
PRIOR PELLON NUMBER: 60/212,073; 60/213,467; 60/215,651; 60/216,605; 60/218,372;
60/228,056
PRIOR FILING DATE: 2000-06-15; 2000-06-23; 2000-06-30; 2000-07-07; 2000-07-13; 2000-08: 25
NUMBER OF SEQ ID NOS: 52
SOFTWARE: PELL Program
SEQ ID NO 51
LENGTH: 995
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAATGGACCTGTTCTACAGGAACTCAGCTGACTTGGAGCAGTTGTATGGGTCGGCCAT 1352
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US-10-311-034-51
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100.0%; Pred. No. 1.5e-269;
ive 0; Mismatches 0;
TITLE OF INVENTION: HUMAN KINASES
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Best Local Similarity 100.
Matches 868; Conservative
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      Sequence 51, Application US/10311034
Publication No. US20040023242A1
GENERAL INFORMATION:
APPLICANT: INCYTE GENOMICS, INC.
APPLICANT: INCYTE GENOMICS, INC.
APPLICANT: LAL, Freet;
APPLICANT: BANDMAN, Olga
APPLICANT: BANDMAN, Olga
APPLICANT: BANDMAN, Olga
APPLICANT: LU, Yan
APPLICANT: GANDHI, Ameena R.
APPLICANT: CANDHI, Ameena R.
APPLICANT: CANDHI, Ameena R.
APPLICANT: CHAMLA, Narinder K.
APPLICANT: LU, Dyung Aina M.
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LIAL, Preetti
BANDWAN, Olga
BOROWSKY, Mark L.
AU-YONG, Janice
LU, Yan
GANDHI, Ameena R.
TRIBOULEY, Catherine M.
CHAWLA, Narinder K.
YAO, Monique G.
LU, DAVUNG Ahna M.
GREENWALD, Sara R.
RAMKUMAR, Jayalaxmi
GRIFFIN, Jennifer A.
KEARNEY, Liam
BURFORD, Neil
MUNTRY, Liam
BURFORD, Neil
MUNTRY, Tom
TANG, Y. TOM
TANG, Y. TOM
BAUGHN, Mariah R.
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HAFALIA, April
ARVIZO, Chandra S.
GURURAJAN, Rajagopal
IO, Terence P.
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RECIPON, Shirley A.
AZIMZAI, Yalda
POLICKY, Jennifer L.
DING, Li
GREHHER, Megan
ELLIOTT, VICK! S.
THANGANELU, Kavitha
BATRA, Sajeev
ISON, Craig H.
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US-LI-OS-WUL-AS)

Sequence 23, Application US/10165800
Publication No. US20030092116A1
GENERAL INFORMATION:
APPLICANT: Chun, Miyoung
APPLICANT: Chun, Miyoung
APPLICANT: Chun, Miyoung
APPLICANT: Glucksmann, Maria Alexandra
APPLICANT: Rapellar-Libramann, Rosana
APPLICANT: Rapellar-Libramann, Rosana
TITLE OF INVENTION: No. US20030092116A1e1 Nucleic Acid Sequences Encoding
TITLE OF INVENTION: Adenylate Kinase, Phospholipid Scramblase-Like, DNA
TITLE OF INVENTION: Adenylate Kinase, Phospholipid Scramblase-Like, DNA
TITLE OF INVENTION: And APPEACLIAN Molecules and Uses Therefor
TITLE OF INVENTION: The Maria APPLICATION NUMBER: US/10/165,800
CURRENT APPLICATION NUMBER: 09/790,179
PRIOR FILING DATE: 2001-02-21
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2000-02-29
PRIOR FILING DATE: 2000-02-29
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PRIOR FILING DATE: 2000-02-29
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PRIOR PRIOR PRIUGATION NUMBER: 60/185,947
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                                CTGGGGGATCACACCCCAGACACGTCATTGTGCTGAGTGCTCCAGACACGGTCCTGATCGAG
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                                                                                                                                      AGAAACTTGGGGAAGAATCGACCCTCAAACTGGAGAGTTTATCACACCACCTTTGAC
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APPLICANT: Tang, Y. Tom
APPLICANT: Liu, Chenghua
APPLICANT: Liu, Chenghua
APPLICANT: Aundi, Vinod
APPLICANT: Xu, Chongjun
APPLICANT: Xu, Chongjun
APPLICANT: Abou, Ping
APPLICANT: Mang, Jian-Rui
APPLICANT: Ren, Feilm
APPLICANT: Ren, Feilm
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
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APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong
APPLICANT: Dang, Jiwei
APPLICANT: Dang, Jiwei
APPLICANT: Dang, Jiwei
APPLICANT: Olan, Xiachong B.
APPLICANT: Olan, Xiachong B.
APPLICANT: Olan, Siachong B.
APPLICANT: WUMBER: 09/598,042
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR APPLICATION NUMBER: 09/598,137
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
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Best Local Similarity 92.0%; Pred. No. 8.3e-235;
Matches 803; Conservative 0; Mismatches 70;
                                                                                                                                                        ; Sequence 257, Application US/10098841; Publication No. US20020197679A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (63)..(1778)
US-10-098-841-257
723
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Best Local Similarity 100.
Matches 407; Conservative
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CORGANISM: Homo sapiens
US-09-918-995-16667
       RESULT 11
US-09-918-995-16667
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PRIOR FILING DATE: 2000-02-29
PRIOR APPLICATION NUMBER: 09/795,038
PRIOR FILING DATE: 2001-02-26
PRIOR FILING DATE: 2001-02-29
PRIOR FILING DATE: 2000-02-29
PRIOR PILING DATE: 2000-02-29
PRIOR PILING DATE: 2001-02-21
PRIOR PILING DATE: 2001-02-21
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 25
NUMBER OF SEQ ID NOS: 25
SEQ ID NO 23
SEQ ID NO 23
                                                                                                                                                               ORGANISM: Homo sapiens
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US-10-165-800-23
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                                                                                                                                                                                APPLICATION THOSE TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED TITLE OF INVENTION: PROM VARIOUS CDNA LIBRARIES FILE REFERENCE: 2011-756 CURRENT APPLICATION NUMBER: US/09/235,076 PRIOR APPLICATION NUMBER: US/09/235,076 PRIOR PILING DATE: 1999-01-20 NUMBER OF SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID NOS: 38054 SEQ ID 
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; Sequence 16667, Application US/09918995
; Publication No. US20030073623A1
; GENERAL INFORMATION:
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                                                 1119 CAGGGTGTTTTTCCTGAATGTGCCATTTGATTCCATCATGGAGCGGCTGACTCTGAGAAG 1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1179 AATTGATCCAGTCACTGGGGAAAGGTACCACCTCATGTACAAGCCACCTCCCACGTGGA 1238
       178 GATCCAGGCTCGCCTCCTGCAGAACCCAAAGGATGCTGAAGAGCAGGTCAAGGTGAAAT 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                               Sequence 566, Application US/09764868
Sequence 566, Application US/09764868
Partent No. US20020168711A1
GENERAL INVENTANCE
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PT222
CURRENT APPLICATION NUMBER: US/09/764,868
CURRENT FILING DATE: 2001-01-17
Prior application data removed - refer to PALM or file wrapper SOFTWARE: PatentIn Ver. 2.0
SOFTWARE: PatentIn Ver. 2.0
LENGTH: 510
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Best Local Similarity 100.0%; Pred. No. 4.8e-93;
Matches 322; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: SITE
1.COATLON: (8)
COTHER INFORMATION: n equals a,t,g, or c
US-09-764-868-566
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Publication No. US200300035531
GENERAL INFORMATION:
APPLICANT: Yu, Xuanchuan
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ORGANISM: Homo sapiens
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                                                                                                                     Gaps
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                                                                                    Query Match 25.5%; Score 366.6; DB 10; Length 447; Best Local Similarity 97.6%; Pred. No. 1.7e-107; Matches 372; Conservative 0; Mismatches 9; Indels 0;
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Patent No. US20020169711A1
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PTZ32
CURRENT FILING DATE: 2001-01-17
PTIOT application date removed - refer to PALM or file wrapper
SOFTWARE PER DE 1805: 1510
NUMBER OF SEQ ID NOS: 1510
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 255
LENGTH: 509
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; LCGATION: (1)...(447)

: OTHER INFORMATION: n = A,T,C or G

US-09-918-995-79164
ORGANISM: Homo sapiens
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APPLICANT: Xie, Qiongshu
APPLICANT: Abuin, Alejandro
APPLICANT: Malke, D. Wade
TITLE OF INVENTION: No. US2030008365Alel Human Kinases and Polynucleotides Encoding
TITLE OF INVENTION: No. US2030008365Alel Human Kinases and Polynucleotides Encoding
FILE REFERENCE: LEX-0344-USA
CURRENT APPLICATION NUMBER: US/10/141,634
CURRENT APPLICATION NUMBER: US 60/289,727
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 4
SOCTAWARE: FREESEQ for Windows Version 4.0
SEQ ID NO 3
LEMCHTH: 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1216 TACAAGCCACCTCCCACCATGGAGATCCAGGCTCGCCTCTGCAGAACCCAAAGGATGCT 1275
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19.8%; Score 285; DB 14; Length 285;
Best Local Similarity 100.0%; Pred. No. 3.4e-81;
Matches 285; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1396 ATCGAGAGTGGGATCATTAATCCCTGCCCAAGAAAATCCCTGA 1440
241 ATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAAATCCCCTGA 285
                                                                                                                                                                                                                                                                      TYPE: DNA
CONGANISM: homo sapiens
US-10-141-634-3
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Search completed: March 20, 2005, 01:40:30 Job time : 815 secs

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Sequence 2, Appli
Sequence 5746, Ap
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Sequence 5694, Ap
Sequence 6944, Ap
Sequence 1243, Ap
Sequence 1243, Appl
Sequence 6, Appli
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Sequence 28, Appl
Sequence 9058, Appl
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                                                              March 19, 2005, 20:32:04; Search time 276 Seconds (without alignments) 8537.096 Million cell updates/sec
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                                                                                                                                      1 atggacgccactatcgcccc......tgcccaagaaaatcccctga 1440
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2: /cgn2 6/ptodata/1/ina/5B COMB.seq:*
3: /cgn2 6/ptodata/1/ina/6A COMB.seq:*
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6: /cgn2 6/ptodata/1/ina/pcTUS COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-513-9997-3495

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US-09-138-0374

US-09-149-038-138

US-09-149-038-138

US-09-149-046-138

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US-09-149-046-138

US-09-125-991A-576

US-09-252-991A-576

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US-09-118-442-16

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Maximum Match 100%
Listing first 45 summaries
                                          nucleic search, using sw model
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Gapop 10.0 , Gapext 1.0
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Match Length
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Sequence 1, Application US/10141634
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Sequence 1, Application US/10141634
Sequence 1, Application US/10141634
Sequence 1, Application US/101616
Sequence 1, Application US/10161
Sequence 1, Application Xi, Auanchuan
SAPPLICANT: Xie, Qiongshu
APPLICANT: Xie, Qiongshu
APPLICANT: Walke, D. Wade
TITLE OF INVENTION: No. 6734010e1 Human Kinases and Polynucleotides Encoding the Same
TILE REFERENCE: LEX-0344-USA
CURRENT FILING DATE: 2002-05-08
SPRIOR APPLICATION NUMBER: US 60/289,727
PRIOR APPLICATION NUMBER: US 60/289,727
SPRIOR PILING DATE: 2001-05-09
SOFTWARE FastSEQ for Windows Version 4.0
                          Sequence 13224, A sequence 13224, A sequence 1. Appli Sequence 1. Appli Sequence 5442, Ap Sequence 5842, Ap Sequence 584, App Sequence 2000, Ap Sequence 7107, Ap Sequence 7107, Ap Sequence 7107, Ap Sequence 1176, Ap Sequence 1210, App Sequence 1224, App
          14297, A
13224, A
12064, A
e 2, Appli
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CRGANISM: homo sapiens
US-10-141-634-1
  LENGTH: 1440
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                      ATCCCTGAGACGCGTGAGCCTCTGAGGATCCAGACCCTGGGGATCACACCCAGACAC
                                                     GTCATTGTGCTGAGTGCTCCAGACGCTCCTGATCGAGAGAAACTTGGGGAAGAGAATC
361 CTGATTCAGGAACGCCTGGCTGAAGAGGATTGCATCAAGCAGGGCTGGATCTGGATTGTGGT
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APPLICANT: Dunmas Mille Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
PILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT PILING DATE: 1999-02-24
PRIOR PILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 3495
LENGTH: 264
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19.8%; Score 285; DB 4; I
Best Local Similarity 100.0%; Pred. No. 9.1e-74;
Matches 285; Conservative 0; Mismatches 0;
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            Sequence 3, Application US/10141634 Patent No. 6734010 GENERAL INFORMATION:
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NAME/KEY: CDS
LOCATION: 67..264
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US-10-141-634-3
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TYPE: DNA ORGANISM: ORGANISM: Pseudomonas aeruginosa

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Sequence 4328, Application US/09252991A

Parent No. 6551795

GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ABOUT TO NUMBER: US/09/252,991A

CURRENT PILING DATE: 1999-02-18
PRIOR PPLING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR PLING DATE: 1998-02-18
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
SEQ ID NO 4328
LENGTH: 747
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                                                                                                                                                                                                                                                                                                                                      Length 747;
                                                                                                                                                                                                                                                                                                                         Query Match
4.6%; Score 66.4; DB 4; Length 74
Best Local Similarity 49.0%; Pred. No. 3.9e-09;
Matches 206; Conservative 0; Mismatches 211; Indels
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-4328
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Best Local Similarity 79.0%; Pred. No. 1.6e-22;
Matches 154; Conservative 5; Mismatches 0; Indels 36;
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OTHER INFORMATION: Xaa=1le or Asn
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US-09-513-999C-3495
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LOCATION: 46
OTHER INFORMATION: Xaa=Leu or
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LOCATION: 222
OTHER INFORMATION: m=a or
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          WAME/KEY: misc_feature
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                                                                       NAME/KEY: misc_feature
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LOCATION: 228
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NAME/KEY: UNSURE
LOCATION: 51
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LOCATION: 52
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Sequence 4423, Application US/09252991A

Sequence 4423, Application US/09252991A

Sequence 4423, Application US/09252991A

Sequence 4423, Application US/09252991A

Sequence 4423, Application US/09252991A

Sequence 4423, Application US/0925291A

APPLICANT: Marc J. Rubenfield et al.

APPLICANT: Marc J. Rubenfield et al.

APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 4423
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
TITLE OF INVENTION: ARGUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ARGUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: ARGUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 4526
LENGTH: 849
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985 GACAGCCICCICATGAAGGIGCIGAGCCAGCGCCTGGACCAGGACIGCATCCAGAAA 1044
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48.9%; Pred. No. 2.9e-06;
tive 0; Mismatches 217; Indels
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Patent No. 6001624
GENERAL INFORMATION:
APPLICANT: Hillman, Jennifer L.
APPLICANT: Shah, Purvi
ITILE OF INVENTION: NOVEL MITOCHONDRIAL ADENYLATE KINASE
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
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CURRENT APPLICATION DATA: US/08/829,027
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                                                                                                                                                                                                                                                             FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
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I LENGTH: 814 base pairs

TYPE: nucleic acid

TYPE: nucleic
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Best Local Similarity 48.98
Matches 216; Conservative
                                                                                                                 FILING DATE: Herewith
CLASSIFICATION: 435
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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US-09-225-366-2
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                              Sequence 5541, Application US/09489039A

Sequence 5541, Application US/09489039A

GENERAL INFORMATION:
GENERAL INFORMATION:
TILLE OF INVENTION: UNCLEDIC AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TILLE OF INVENTION: UNCLEDIC AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US/09489,039A

PRIOR APPLICATION NUMBER: US/09489,039A

PRIOR PELING DATE: 2000-01-27

PRIOR PILING DATE: 1999-01-29

PRIOR PLING DATE: 1999-01-29

SEQ ID NOS: 14342

LENGTH: 678
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| Patent No. 2865160
| GENERAL INFORMATION:
| APPLICANT: Hillman, Jennifer L. APPLICANT: Hillman, Jennifer L. APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| APPLICANT: Shah, Purvi
| INCORRESPONDENCE ADDRESS:
| ADDRESSEE: Incyte Pharmaceuticals, Inc. |
| STREET: 3174 Porter Drive | CONTRY: CA |
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48.8%; Pred. No. 3.3e-08;
Live 0; Mismatches 208; Indels
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GNS-09-489-039A-5541
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    US-09-489-039A-5541
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APPLICANT: Rosen et al.
TITLE OF INVENTION: 186 Human Secreted proteins
FILE REPERBNCE: P2002P1
CURRENT APPLICATION NUMBER: US/09/149,476
CURRENT FILING DATE: 1998-09-08
EARLIER APPLICATION NUMBER: PCT/US98/04493
EARLIER FILING DATE: 1998-03-06
EARLIER PILING DATE: 1998-03-06
EARLIER PILING DATE: 1997-03-07
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R APPLICATION NUMBER: 60/047,587
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,492
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,598
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,613
R REPLICATION NUMBER: 60/047,613
R FILING DATE: 1997-05-23
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R APPLICATION NUMBER: 60/047,618
R FILING DATE: 1997-05-23
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,503
R APPLICATION NUMBER: 60/047,592
R APPLICATION NUMBER: 60/047,592
R APPLICATION NUMBER: 60/047,592
R APPLICATION DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,581
R FILING DATE: 1997-05-23
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R APPLICATION NUMBER: 60/047,633
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,583
R FILING DATE: 1997-05-23
R APPLICATION NUMBER: 60/047,617
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APPLICATION NUMBER: 60/043,580
FILING DATE: 1997-04-11
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FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,500
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APPLICATION NUMBER: 60/047,600
FILING DATE: 1997-05-23
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FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,502
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APPLICATION NUMBER: 60/040,334
FILING DATE: 1997-03-07
APPLICATION NUMBER: 60/040,336
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APPLICATION NUMBER: 60/040,163
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APPLICATION NUMBER: 60/040,626
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APPLICATION NUMBER: 60/040,333
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APPLICATION NUMBER: 60/038,621
                                             US-09-149-476-68; Sequence 68; Application US/09149476
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                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: 1BM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastsERO for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/225,366
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/829,027
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: 9F-0256 US
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 854 base pairs TYPE: nucleic acid ringle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic corresponding of the standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard standard stan
                               STREET: 31/7.
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US-09-225-366-2
                                                                                                         STATE: C
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EARLIER PELICATION NUMBER: 60/043, 314
EARLIER PILING DATE: 1997-04-11
EARLIER PILING DATE: 1997-04-11
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EARLIER PILING DATE: 1997-04-12
EARLIER PILING DATE: 1997-04-12
EARLIER PILING DATE: 1997-04-22
EARLIER PILING DATE: 1997-06-22
EARLIER PILING DATE: 19

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BARLIER PILING DATE: 1997-05-23
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TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,756
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-0-03
PRIOR FILING DATE: 2000-0-03
PRIOR SEDIION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-0-08
NUMBER OF SEDIIO NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEDIIO NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
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Sequence 2, Application US/09103840A

Patent No. 6294328

GENERAL INFORMATION:
APPLICANT: FLEISCHMAN, Robert D.
APPLICANT: WHITE, Owen R.
APPLICANT: PRESSR, Claire M.
APPLICANT: PRESSR, Claire M.
APPLICANT: PRESSR, Claire M.
APPLICANT: PRESSR, Claire M.
APPLICANT: PRESSR, Claire M.
APPLICANT: PUBRCUIOSIS
TITLE OF INVENTION: TUBERCUIOSIS
TUBERCH APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PATENTIN VET: 2.1
SEQ ID NO 2
LENGTH: 4403765
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Best Local Similarity 44.7%;
Matches 163; Conservative (
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; ORGANISM: Human
US-09-949-016-5838
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US-09-103-840A-2
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Sequence 3207, Application US/09489039A

Patent No. 6610836

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA

CURRENT APPLICATION NUMBER: US/09/489,039A

CURRENT FILING DATE: 2000-01-27

PRIOR FILING DATE: 1999-01-29

NUMBER OF SEQ ID NOS: 14342

SEQ ID NO 3207

LENGTH. 106C
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                                                                                                                                          GACAGCCICCICATGAAGGIGCIGAGCCAGCCTGGACCAGCAGGACTGCATGAAA 1044
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2.9%; Score 41.8; DB 4; Length 1
Best Local Similarity 46.9%; Pred. No. 0.12;
Matches 130; Conservative 0; Mismatches 147; Indels
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ORGANISM: Klebsiella pneumoniae
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US-09-489-039A-3207
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TYPE: DNA ORGANISM: Mycobacterium tuberculosis

Sequence 5838, Application US/09949016 Patent No. 6812339 GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al.

US-09-949-016-5838

235

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Gaps

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us-10-798-773-1.rni

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828301 GAGAGTTTTGTTGCTGGGACGCCCGGGGCGGCAAGGGGACGCAGGCGGTGAAGCTGGC 828360
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; OTHER INFORMATION: CDC 1551
; OTHER INFORMATION: "n" bases at various positions throughout the sequence
; OTHER INFORMATION: represent a, t, c or g
US-09-103-840A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/09103840A

Sequence 1, Application US/09103840A

Patent No. 6294328

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, Robert D.

APPLICANT: FIEISCHMAN, ROBERCULOSIS

FILLE OF INVENTION: DNA SEQUENCES

FILE REFERENCE: 24366-20007.00

CURRENT PELING DATE: 1998-06-24

NUMBER OF SEQ ID NOS: 2

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 1

LENGTH 4411529
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Pred. No. 25;
0; Mismatches 116; Indels 0;
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Job time: 293 secs
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OGASAISM: Mycobacterium tuberculosis
OTHER INFORMATION: H37RV
US-09-103-840A-1
                                                                                                                  Query Match 2.8%;
Best Local Similarity 48.7%;
Matches 110; Conservative
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GenCore version 5.1.6

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OM nucleic - nucleic search, using sw model

Run on:

March 19, 2005, 20:29:39; Search time 4381 Seconds

(without alignments)
12511.424 Million cell updates/sec

Title:

WS-10-798-773-1

Perfect score:
1 440

Sequence:
1 atggacgccactatcgcccc......tgcccaagaaaatcccctga 1440

Scoring table:
Gapop 10.0, Gapext 1.0

Searched:
34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters:
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Minimum DB seq length: 0

Maximum DB seq length: 2000000000
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Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : EST:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	OI.	BC037402	AK004439	BM920443	CD515464	BI819382	BM926674	BI829572	BI767614	BI828586	CV030269	BU617945	B0016312	BY704667	BP368808	BP347783	AW069362	BU683145	AI591934	CK476676	BQ942240	CK594922	CK653506	CK470906	CK468902
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عل	Query Match	71.2	63.4	63.3	55.9	54.4	51.6	50.2	48.8	46.5	45.6	41.0	38.0	36.0	35.7	35.7	32.2	32.2	31.1	30.7	29.3	29.0	28.7	28.4	28.0
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25 387.6 26 386.2 27 386 28 383.4	29 377.8 30 362 31 361	33 348.6 34 343.3 35 341.2	36 323.2 37 322.4 38 322.3 39 322	40 322 41 322 42 322 43 320.4 44 296.6 45 290
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## ALIGNMENTS

BC037402  BC037402  BC037402  Homo sapiens chromosome 9 open retained intron.  BC037402  BC037402  BC037402  BC037402  Homo sapiens (human)  Homo sapiens (human)  Homo sapiens (human)  Homo sapiens (human)  Homo sapiens (human)  BC037402  Homo sapiens (human)  Homo sapiens (human)  BC037402  BC037402  Homo sapiens (human)  BC037402  BC037402  Homo sapiens (human)  Homo sapiens (human)  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC037402  BC03740	Scineton, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length	numen and mouse cDNA sequences Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) 12477932 2 (bases 1 to 2567) Strausberg,R. Direct Submission Submitted (04-SEP-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, MIH-MGC Project URL: http://mgc.nci.nih.gov Contact: MGC help desk Email: cgapbs-r@mail.nih.gov Tissue Procurement: Life Technologies, Inc. CDNA Library Preparation: Life Technologies, Inc.
RESULT 1 BC037402 LOCUS DEFINITION ACCESSION VERSION VERSION ORGANISM REFERENCE AUTHORS	TITLE	JOURNAL PUBMED REFERENCE AUTHORS TITLE JOURNAL REWARK COMMENT

us-10-798-773-1.rst

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Shibata,K., Shibata,Y., Shinagawa,A., Shiraki,T., Sogabe,Y., Suzuki,H., Tagawa,A., Takahashi,F., Tanaka,T., Yoshim,Y., Toya,T., Yamamura,T., Yasunishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and Hayashizaki,Y. Toya,T. Yoshino,M., Muramatsu,M. and Hayashizaki,Y. Submission Submission Submission Grand Chemical Research (RIKEN) Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Sushiro-cho, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, WRi.http://genome.gsc.riken.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Please visit our web site (http://genome.gsc.riken.jp/) for further
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88
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63.4%; Score 912.8; DB 3; Length 1559;
Best Local Similarity 77.6%; Pred. No. 1.6e-232;
Matches 1117; Conservative 0; Mismatches 322; Indels 1;
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Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

6 (Bases I to 1559)

7 Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Haracka, T., Hanagaki, T., Haraka, H., Hayatsu, N., Hiramoto, K., Kawai, T., Kawai, J., Kojima, Y., Itoh, M., Izawa, M., Kayaka, T., Kato, T., K., Matsuyama, T., Wiyazaki, J., Nishi, K., Nomazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Sakai, C., Sakai, K., Sano, H., Sasaki, D.,
2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AK004439 mRNA linear HTC 03-APR-2004 Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1190002A17 product:similar to CDNA FL312704 FIS, CLONE TEST12000591, WEAKLY SIMILAR TO ADENYLATE KINASE, AK004439 GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLOSA GLO
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                    Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
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Punctional annotation of a full-length mouse cDNA collection
Nature 409, 685-690 (2001)
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High-efficiency Full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
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                        GTGGAAGCCAAGATTACTACCAGTTTACAAGAATCCCCAATTCGATTCTTGTCAGT
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I (bases 1 to 1094)

IN ILMGC http://mgc.nci.nih.gov/.

IN Mational Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Unpublished (1999)

Unpublished (1999)

In Strausberg, Ph.D.

Bmail: cgapbs-rømali.nih.gov
Tissue Prourement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium

CONA Library Arrayed by: The I.M.A.G.E. Consortium

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

Http://image.llnl.gov

Location/Qualifiers

Location/Qualifiers
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63.3%; Score 911.8; DB 5;
Best Local Similarity 96.0%; Pred. No. 2.7e-232;
Matches 1021; Conservative 0; Mismatches 32;
                                                                                                                                                                                                                                                                                                          5', mRNA Bequence.
BM920443
BM920443.1 GI:19370822
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KEYWORDS
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/organism="Homo sapiens"
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/dab_host="DH10B-TON A T1 and T5 phage resistances)"
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/note="Vector: DCMV-SPORT6.1; Site_1: Not1, Site_2: ECORV (destroyed); Library is oligo-dT primed and directionally cloned (ECORV site is destroyed upon cloning). Average insert size 1.42 kb. Library was constructed by (Invitrogen). Note: this is a NIH_MGC Library."
        National Cancer Institute / NIH
Bldg. 31 RmloAd7 Bethesda, MD 20892
Enail: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Michael Brownstein
cDNA Library Preparation: Invitrogen Corp
cDNA Library Preparation: Invitrogen Corp
cDNA Library Arrayed by: The I M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.llnl.gov
High quality sequence stop: 759.
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Homo sapiens
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (Dasses 1 to 886)
NIH-WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
                           CTGATTCAGGAACGCCTGGAAGAGGATTGCATCAAGCAGGGCTGGATTCTGGATGGC
                                                                                                                                                      GTCATTGTGCTGAGTGCTCCAGACACGGTCCTGATCGAGAAACTTGGGGAAAGAATC
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CD515464.1 GI:31447182
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1130 bp mRNA linear EST 12-MAR-2002 SGENCOURT 6644707 NIH_MGC_122 Homo sapiens CDNA clone IMAGE:5767090 S', mRNA Sequence.
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1 (bases 1 to 1130)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
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CTGAACAGCAGTCTCCTCACCTGGAGAACCTGATCTTAAATGAGTTTTCCTATACGGCC
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1 (bases 1 to 890)
S NIH-MGC http://mgc.nci.nih.gov/
L Orbublished (1999)
L Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.lln.gov
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603034555F1 NIH_MGC_115 Homo sapiens CDNA clone IMAGE:5175757 5',
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llarity 98.0%;
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/clone lib="NIH MGC 119"
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/clone lib="NIH MGC Eachy Sporte normal medulla from anonymous male age 27. Library is oligo-dT primed and directionally cloned (Ecorv site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
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Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (basea i to 827)

National Institutes of Health, Mammalian Gene Collection (MGC)

Lunpublished (1999)

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Email: cgapber-remail.inh.gov,

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Email: cgapber-remail.inh.gov

Tissue Procurement: Life Technologies, Inc.

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CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arzayed by: The I.M.A.G.B. Consortium (LINL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be http://image.llnl.gov

Plate: Librallity Sequence stop: 819.

High quality sequence stop: 819.
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B1829572 G1:15941122
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Email: cgapbs-remail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Mife Technologies, Inc.

CDNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can life.pi/linge.lih.A.G.E. Consortium/LLNL at:

http://image.lih.gov m column: 11

High quality sequence stop: 682.
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SINH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
L Contact: Robert Strausberg, Ph.D.
Email: cgapba-r@mail.nih.gov
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CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LiAMMISS7 row: a column: 12
High quality sequence stop: 710.
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48.8%; Score 703; DB 4; Le
Best Local Similarity 100.0%; Pred. No. 1.6e-176;
Matches 703; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5210003"
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Homo sapiens (human)
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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    Length 827;
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       50.2%; Score 723.2; DB 4;
98.8%; Pred. No. 6.7e-182;
iive 0; Mismatches 3;
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Rual, J.F., Hirozane-Kishikawa, T., Hao, T., Bertin, N., Li, S., Dricot, A., Li, N., Rosenberg, J., Lamesch, P., Vidalain, P.O., Clingingsmith, T.R., Hartley, J.L., Esposito, D., Moore, T., Simmons, B., Sequerra, R., Bosak, S., Doucette-Stamm, L., Le Peuch, C., Vandenhaute, J., Cusick, M.E., Albala, J.S., Hill, D.E. and Vidal, Human ORFeome Version 1.1: a Platform for Reverse Proteomics Contact: Vidal M press Contact: Vidal M press Proteomics Contact: Vidal Marc Vidal M press Proteomics Contact: Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal Marc Vidal M
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CV030269 G: CV030269 G: CV030269.1 G: 51488510
                                                                                                                                              274 AICTIAAAIGAGITITCCTATACGGCCACCGAAGCCAGAAGGCTITAICTGCAAAGGAAG 333
                                                                                                                                                                                                                                                                             334 ACAGTICCCAGCGCGCTGCTCGTCCAGCTGATTCAGGAACGCCTGAAGAGGATTGC 393
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Mammalia; Butheria; Primates, Catarrhini, Hominidae; Homo.

    (bases 1 to 657)

                                                              AGAGACAACGACAATGTGCCCAGGATTGTAATATTAGGTCCACCCGCCTCAGGGAAAACA
                                                                                                                     ACAATAGCAATGTGGCTCTGCAAACATCTGAACAGCAGTCTCCTCACCTGGAGAACCTG
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Homo sapiens
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661 TCCTACCCCA 670
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(Organism="Homo sapiens")

(Organism="Homo sapiens")

(Organism="Homo sapiens")

(Ab. Inform=19606")

(Clone="Inform=19606")

(Lissue_type="medulla")

(Libe="Organ: brain; Vector: pCMV-SPORT6; Site_1: Not!;

Site_2: ECORV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 1.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI828586 670 bp mRNA linear EST 04-OCT-2001
GICATTGTGCTGAGTGCTCCAGACACGGTCCTGATCGAGAAAACTTGGGGAAGAATC 547
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                                       GACCCTCAAACTGGAGAGATTATCACACCACCTTTGACTGGCCACCGGAATCTGAAATC
                                                              601 CAGAACCGTCTCATGGTGCCAGAGGACATCTCAGAGGTGGAGACGGCTCAGAAACTGCTG
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al Similarity 100.0%; Pred. No. 1.1e-167;
670; Conservative 0; Mismatches 0;
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          RESULT 11
BU617945/c
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                                                                                                                                                                                                                                                     /note="Vector: mixed; The ORFs were PCR amplified from the MGC (Nammalian Gene Collection) as of April 2004 and cloned by recombinational Gateway cloning into pDONR223 Donor vector. Reference: MGC (Nammalian Gene Collection) Program Team, Generation and Initial Analysis of more than 15,000 Pull-Length Human and Mouse cDNA Sequences. PNAS, 2002, 99(26), 16899-16903"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                 /tissue type="mixed"
/clone_lib="Full Length cDNA from the Mammalian Gene
                                                                                                                                                                                                                                                                                                                                                                                                       Score 656; DB 7; Length 657;
Pred. No. 5.8e-164;
0; Mismatches 1; Indel8
                                       plate: 11065 row: 11 column: E
Seg primer: ACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAAC
High quality sequence start: 97
                                Std Error: 60.00
                                                                                                                                                   1. .657
/organism="Homo sapiens"
FORWARD: ATGGACGCCACTATCGCC
BACKWARD: CAGGGGATTTTCTTGGGCAGG
                                                                                                                                                                                /mol_type="mRNA"
/db xref="taxon:9606"
                                                                                                                                 Location/Qualifiers
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al Similarity 99.8%;
656; Conservative (
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// Organisms="Andro" Saprems
// Ab_Zref="taxon:9606"
// Ab_Zref="taxon:9606"
// Ab_Dres="U1+DF0-beu-d-15-0-U1"
// Lisue type="Subchondral Bone"
// Aev stage="Adult"
// Ab_Drest="DHIOB (Life Technologies)"
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Email: ggapbs-r@mail.nih.gov

Email: ggapbs-r@mail.nih.gov

Tissue Procurement: Dr. Jose Mercuende

CDNA Library preparation: Dr. M. Bento Soares, University of Iowa

CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa

CDNA Electrical Soares, University of Iowa

Clone Distribution: Clone distribution information can be obtained

from Dr. M. Bento Soares, bento-soares@uiowa.edu

Seg primer: M.3 FORWARD

POLYA=Yes. 540 ö 196 600 907 99 BUG17945 UI-H-DFO-beu-d-15-0-UI.81 NCI CGAP DFO Homo sapiens CDNA clone UI-H-DFO-beu-d-15-0-UI 3', mRNA sequence. Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 721)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP), 908 rgaaagagcrgrggcagaraggaccacgrrrggcgagcrcarccagccrrcrrrraaaa aggiagarigiciagiriccigacagicriccicargaaggigcigagccagggcrigagccagg 848 recadecedecerecreses and recade and reconstructions are reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and reconstructed and recons Gaps ö Score 591; DB 5; Length 721; Pred. No. 1.4e-146; 0; Mismatches 2; Indels organism="Homo sapiens" TAG_LIB=UI-H-DF0 TAG_SEQ=GTTAAGCGTC" Location/Qualifiers 1. .721

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to an EcoR I adaptor, digested with Not I, and cloned directionally into pT773-Pac vector. The oligonucleotide used to prime the synthesis of first-strand contains a library tag sequence that is located between the Not I site and the (dT) 18 tail. The sequence tag for this I library is AACTGTTCGG.
TAG TISSUB-lung metatastic chondrosarcoma TAG_LEB-UI-H-DI metatastic chondrosarcoma TAG_EBC-AACTGTTCGG.
                                                                                                                                                                                                                                                                                                                        952 CAGCCTTCTTTGAAAGGAGATGGCAGTTCCTGACAGCCTCCTCATGAAGGTGCTGAGC 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1132 CTGAATGTGCCATTTGATTCCATCATGGAGCGGCTGACTCTGAGAAGAATTGATCCAGTC 1191
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY704667 RIKEN full-length enriched, 18-day embryo whole body Mus musculus cDNA clone 1190002A17 5', mRNA sequence.

BY704667 GI:27115799
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
Mus musculus
Mus maculus
Eukaryota, Metrazoa, Chordata, Craniata, Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
Okazaki, Y., Furuno, M., Kasukawa, T., Adachi, J., Bono, H., Kondo, S.,
Nikaido, I., Osato, N., Saito, R., Suzuki, H., Yamanaka, I.,
Kiyosawa, H., Yagi, K., Tomaru, Y., Hasegawa, Y., Nogami, A.,
Schonbach, C., Gojobori, T., Baldarelli, R., Hill, D. P., Bult, C.,
                                                                                                                                                                                                                                                        892 IGCTGTGGGCAACTGCTGAAAGAGGCTGTGGCAGATAGGACCACGTTTGGCGAGCTCATC
                                                                                                                                                                                                                                                                                .012 cAGCGCCTGGACCAGCACTGCATCCAGAAAGGCTGGGTGCTACACGGCGTCCCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                             1072 GACCTCGACCAGGCACACCTGCTGAACCGCCTGGGCTACAATCCCAACAGGGTGTTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        495 GACCTCGACCAGGCACACCTGCTGAACCGCCTGGGCTACAATCCCCAACAGGGTGTTTTTTC
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0
                                                                                                                                                                                                   Length 685;
                                                                                                                                                                                         tch
38.0%; Score 547; DB 5; Length 68:
31 Similarity 99.6%; Pred. No. 8.3e-135;
547; Conservative 0; Mismatches 2; Indels
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                                                                                                                                                                             1208 ACCTCATGTACAAGCCACCTCCCACCATGGAGATCCAGGGTCGCCTCCTGCAGAACCCAA 1267
                                                                                                                                                                                                                                                                                                          1328 TGGAGCAGTTGTATGGGTCGGCCATCACCCTCAATGGGGACCAAGGACCCATACACAGTCT 1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BQ016312 685 bp mRNA linear EST 17-JUN-2002 UI-H-PII-awb-f-10-0-UI.sl NCI_CGAP_DT1 Homo sapiens cDNA clone HQ016312 BQ016312. GI:19751589
                           480
                                                                                        420
                                                                                                                                                                                                                                           1268 AGGATGCTGAAGAGCAGGTCAAGCTGAAAATGGACCTGTTCTACAGGAACTCAGGTGACT 1327
                                                                                                                                    Contact: Robert Strausberg, Ph.D.
Email: Gapba-refmail.nih.gov
Tissue Procurement: D. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be found
through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 682)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
ACCTGCTGAACCGCCTGGGCTACAATCCCAACAGGGTGTTTTTCCTGAATGTGCCATTTG
                                                                     Location/Qualifiers
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Homo sapiens
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Unpublished (1997)
                                                 8801
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BQ016312/c
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85

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550 bp mRNA linear EST 17-SEP-2004 BP368808 Sugano cDNA library, testis Homo sapiens cDNA clone TST00249, mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721 AGTGCTGACCAGCCATGTGTGGACGTCTACCAGGCTCTGACCTATGTCCAAAGCAAC 780
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         326 GIGGAAĞCCAAGAĞITACİAĞGITIACAAĞAAĞITÇCCAAITÇĞAİTÇITĞICAĞI 385
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 GACCCTCAAACTGGAGGATTTATCACACCACCTTTGACTGGCCACCCGAATCTGAAATC
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                                               Score 518.4; DB 6;
Pred. No. 4.2e-127;
0; Mismatches 196;
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                                                        Query Match 36.0%;
Best Local Similarity 76.4%;
Matches 636; Conservative
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Hume, D.A., Quackenbush, J., Schriml, L.M., Kanapin, A., Matsuda, H., Batalov, S., Beisel, K.W., Blake, J.A., Bradt, D., Brusic, V., Chothia, C., Corbani, L.E., Cousins, S., Dalla, E., Dragani, T.A., Flatcher, C.F., Evrest, R.S., Gaasterland, T., Gariboldi, M., Gissi, C., Godsins, S., Gausterland, T., Gariboldi, M., Gissi, C., Godsins, R., Gugh, J., Grimmond, S., Kawaji, H., Kawasawa, Y., Kedzierski, R.M., King, B.D., Kanai, A., Kurochkin, I.V., Lee, Y., Lenbard, B.L., Marchionni, L., McKenzie, L., Miki, H., Nagashima, T., Munata, K., Okido, T., Pavan, W.J., Pertea, G., Pasole, G., Petrovsky, N., Pillai, R., Pontius, Ju, Qi, D., Ramachandran, S., Petrovsky, N., Pillai, R., Pontius, Ju, Qi, D., Ramachandran, S., Sandelin, A., Schneider, C., Semple, C.A., Setou, M., Shingaald, M., Verzdo, R., Wagner, L., Wallestedt, C., Wang, Y., Watanabe, Y., Verzdo, R., Wagner, L., Wallestedt, C., Wang, Y., Watanabe, Y., Vang, L., Yang, L., Yang, L., Yang, L., Yang, L., Yang, L., Yang, R., Yang, L., Yang, R., Yang, L., Yang, R., Yang, L., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, R., Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Yang, Ya
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Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000)

RIKEN integrated sequence analysis (RISA) system-384-format RIKEN integrated sequence analysis (RISA) system-384-format computer-based methods for the mouse full-length cDNA computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Ree: 11 (2), 281-289 (2001)

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN.
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The Institute of Physical and Chemical Research (RIKEN)
The Institute of Physical and Chemical Research (RIKEN)
Tel: 81-45-503-9222
Fax: 81-45-503-9226
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Adachi,J., Aizawa,K., Akimura,T., Arakawa,T., Carninci,P.,
Fukuda,S., Hashizume,W., Hayashida,K., Hirozane,T., Hori,P.,
Imotani,K., Ishii,Y., Itch,M., Kagawa,I., Kawal,J., Kojima,Y.,
Kondo,S., Konno,H., Koya,S., Miyazaki,A., Murata,M., Nakamura,M.,
Nomura,K., Numazaki,R., Ohno,M., Ohsato,N., Saito,R., Sakazume,N.,
Takeda,Y., Sasaki,D., Sato,K., Shibata,K., Shiraki,T., Tagami,M.,
Takeda,Y., Watahiki,A., Muramatsu,M. and Hayashizaki,Y.
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/tissue_type="whole body"
/clone_lib="RIKEN full-length enriched, 18-day embryo whole body"
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Please visit our web site (http://genome.gsc.riken.go.jp) for further details.
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/mol_type="mRNA"
/strain="C57BL/6J"
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/clone="1190002A17"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

En (bases 1 to 593)

Suzuki, Y., Yamashita, R., Shirota, M., Sakakibara, Y., Chiba, J., Mixushima-Sugano, J., Nakai, K. and Sugano, S.

Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions

Genome Res. 14 (9), 1711-1718 (2004)

Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
1 nstitute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan

Email: ysuzuki@ims.u-ckyo.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                         90 GAACCACATCTTCGAGTTGATGCAGAACATGCTGGAGCAACTCCTGATCCACCACCCGG 149
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/ Organism="Homo sapiens"
/ Ob Zref="taxon:9606"
/ Clone="SZB06383in"
/ Lisue type="brain"
/ Clone_lib="Sugano CDNA library, brain"
                                                                                                                                                                                                                                                                                                                     ch 35.7%; Score 513.8; DB 5; I Similarity 98.9%; Pred. No. 6e-126; 548; Conservative 0; Mismatches 3;
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(日)	Novel	el human	kinase	polypeptide	pti	de (NHP) encoding DNA.	
(₹)	NHP;	; kinase;	gene	therapy;		drug screening; human; e	gene; ds.
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activity and polynucleotides encoding them. The polynucleotides, proteins, antibodies, agonists and antagonists of the proteins are useful for drug screening, clinical trial monitoring, and diagnosing or treating diseases or disorders associated with biological disorders or imbalances. The proteins and polynucleotides are useful in cosmetic and mutriceutical applications, for identifying protein coding sequences and mapping a multique gene to a particular chromosome. The sequence of the polynucleotides and proteins can also be used as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology. The present sequence represents a NHP kinase encoding DNA
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; A	1381 ACAGTCTTCGAATACATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA 1440
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KX	AutoSols; 20-NOV-2003 (first entry)
X 8	Human coding sequence, SEQ ID 1381.
X & & & i	Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease; gene; ss.
×81	Homo sapiens.
XZ	EP1293569-A2.
X & I	19-MAR-2003.
X & i	21-MAR-2002; 2002EP-00006586.
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XKE	(HELI-) HELIX RES INST. (REAS-) RES ASSOC BIOTECHNOLOGY.
X I I I	Isogai T, Sugiyama T, Otsuki T, Wakamatsu A, Sato H, Ishii S; Yamamoto J, Isono Y, Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I; Seki N, Yoshikawa T, Otsuka M, Nagahari K, Masuho Y;

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neurological disorder; cancer; gene therapy; gene; ss.
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                              New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases in which the gene is involved, or as target molecules for gene therapy.
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                                                                                                   The present invention relates to novel human secretory or membrane proteins (ADAS-4072-ADAS-5710) and their coding sequences (ADAS-2433-ADAS-4071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                               Query Match 100.0%; Score 1440; DB 10; Length 1579; Best Local Similarity 100.0%; Pred. No. 0; Matches 1440; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                        Sequence 1579 BP; 403 A; 467 C; 406 G; 303 T; 0 U; 0 Other;
                                                                             Claim 1; SEQ ID NO 1381; 205pp; English
WPI; 2003-395539/38.
P-PSDB; ADA55452.
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                                                        GACCCCCAAACTGGAGATTTATCACACCACTTTGACTGGCCACCCGAATCTGAAATC
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                                                                                                                                                                                                                                                                                   The invention relates to novel human kinases and phosphatases (KPP) polypeptides and polynucleotides. Polypeptides of the invention are used for screening agonists and antagonists. They are used to make monoclonal or polyclonal or antibodies, which are used in diagnostic tests for conditions or diseases associated with expression of the polypeptide. They are also useful for diagnosting or treating diseases or conditions associated with decreased expression or overexpression of functional KPP e.g. cardiovascular or neurological disorders or cancer. The invention is useful in gene therapy. The present sequence is human KPP cDNA
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                                                                                                                                                                                                           New human kinases and phosphatases (KPP), useful for preparing a composition for diagnosing or treating a disease or condition associated with decreased expression or overexpression of functional KPP e.g.,
                                                                                                         Yue H, Lu DAM, Azimzai Y, Ding L, Lee EA, Hafalia AJA, Becha SD; Tang YT, Lal PG, Griffin JA, Gururajan R, Ramkumar J, Elliott VS; Arvizu CS, Luo W, Swarnakar A, Duggan BM, Tran UK, Walia NK; Gandhi AR, Yao MG, Khan FA, Baughn MR, Borowsky ML, Zebarjadian Y; Richardson TW, Marquis JP, Chien D, Jin P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACCACATCTTCGAGTTGATGCAGAACATGCTGGAGCAACTCCTGATCCACCAGCCCGAA
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                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1581 BP; 413 A; 464 C; 402 G; 302 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 1440; E
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                     Claim 5; Col 154; 82pp; English.
           06-JUL-2001; 2001US-0303418P.
19-JUL-2001; 2001US-0306967P.
27-JUL-2001; 2001US-034381P.
19-DEC-2001; 2001US-0343007P.
15-FEB-2002; 2002US-0357675P.
30-APR-2002; 2002US-0376988P.
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.0%;
Matches 1440; Conservative 0;
                                                                                        (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                               2003-120774/11.
                                                                                                                                                                                 WPI; 2003-120774/
P-PSDB; AAE34860.
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ds; gene; cytostatic; antidiabetic; anorectic; cerebroprotective; neuroprotective; antinflammatory; gene therapy; antisense therapy; thyromimetic; NOVX; pathology; cancer; diabetes; obssity; endocrine disorder; CNS disorder; inflammatory disorder; chromosome mapping; tissue typing; predictive medicine. Human NOVX polypeptide coding sequence SEQ ID 04-JUN-2001; 2001US-0295607P.
06-JUN-2001; 2001US-0295641P.
06-JUN-2001; 2001US-0296410P.
07-JUN-2001; 2001US-0296410P.
07-JUN-2001; 2001US-0296575P.
11-JUN-2001; 2001US-0295573P.
12-JUN-2001; 2001US-0295573P.
14-JUN-2001; 2001US-0299585P.
18-JUN-2001; 2001US-0299588P.
19-JUN-2001; 2001US-029958P.
22-JUN-2001; 2001US-029953P.
23-JUN-2001; 2001US-0299549P.
24-JUN-2001; 2001US-0299949P.
25-JUN-2001; 2001US-039994P.
26-JUN-2001; 2001US-0301S50P.
28-JUN-2001; 2001US-0301S50P.
28-JUN-2001; 2001US-0301S50P.
28-JUN-2001; 2001US-0301S50P.
28-JUN-2001; 2001US-0301S50P.
28-JUN-2001; 2001US-0301S50P.
21-PEB-2001; 2001US-031S6956P.
21-PEB-2002; 2001US-031S9934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
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22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
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22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
22-PEB-2002; 2002US-035934P.
23-PEB-2002; 2002US-035934P.
24-MAR-2002; 2002US-035934P.
25-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2002; 2002US-035934P.
27-PEB-2003; 2002US-035934P.
27-PEB-2003; 2002US-035934P.
27-PEB-2003; 2002US-0359 04-JUN-2002; 2002WO-US017443 WO2003000842-A2

Α, Agee ML, Anderson DW, Berghs C, Casman SJ, Catterton E;
Dipipo VA, Edinger SR, Eisen A, Ellerman K, Gangolli EA;
Gerlach VL, Gorman L, Guo X, Herrmann DL, Hjalt T, Ji W, Kekuda R
Khramtsov NV, Li, Liu X, Malyankar UM, Miller CE, Miller I;
Ort T, Padigaru M, Patturajan M, Pena CEA, Rastelli L, Rieger DK;
Rothenberg ME, Shenoy SG, Shimkets RA, Smithson G, Spaderna SK;
Spytek KA, Stone DJ, Vernet CAM, Zhong H, Zhong M, Alsobrook JP;
Burgess CE, Lepley DM;

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WPI; 2003-210149/20. P-PSDB; ADC10110.

New isolated NOVX polypeptides and nucleic acid molecules useful for treating, preventing and diagnosing pathological conditions with NOVX-associated disorders, such as cancer, obesity, diabetes and inflammatory diseases. CNS

20; SEQ ID NO 129; 772pp; English. Claim

The invention relates to novel isolated polypeptides, mature form of the polypeptide, a sequence that is 95% identical to the polypeptide or the polypeptide comprisaing one or more conservative substitutions. The NOVX polypeptide is useful for treating or preventing a pathology associated with the polypeptide e.g. disorders associated with aberrant expression or activity of the polypeptide, such as cancer, diabetes, obesity, and endocrine, CNS and inflammatory disorders. They can also be used in endocrine, and detection and screening assays, chromosome mapping, tissue typing and predictive medicine. This sequence corresponds to the coding sequence for one of the polypeptides of the invention.

\$888888888888**\$**\$

Sequence 1623 BP; 409 A; 482 C; 419 G; 313 T; 0 U; 0 Other;

Gaps 0; Indels 36; Similarity 97.6%; Pred. No. 0; Use 1394; DB 10; Length 1623; Similarity 97.6%; Pred. No. 0; Onservative 0; Mismatches 0; Indels 36; Query Match Best Local Simil Matches 1440; C ò

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444 517 504 577 564

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GACATCTCAGAGCTGGAGACGGCTCAGAAACTGCTGGAGTATCATAGGAACATCGTCAGG GTCATTCCCTCCTACCCCAAAATCCTCAAAGTCATCAGTGCTGACCAGCCATGTGTGGAC 869 585 ò 셤 ò

GTCTTCTACCAGGCTCTGACCTATGTCCAAAGCAACCATCGTACTAATGCCCCGTTCACC 745 818 셤 g à

Otsuki T, Wakamatsu A, Sato H, Ishii S; Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I; Otsuka M, Nagahari K, Masuho Y;

HELIX RES INST. RES ASSOC BIOTECHNOLOGY.

, Sugiyama T, J, Isono Y, Yoshikawa T,

Yamamoto J,

Seki N,

(REAS-) RI Isogai T,

05-NOV-2001; 2001JP-00379298. 25-JAN-2002; 2002US-00350978.

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                                                                                                                                                                                                                                                   985 GACAGCCTCCTCATGAAGGTGCTGAGCCAGGCCTGGACCAGCAGGACTGCATCCAGAAA 1044
                                                                                                       1045 GGCTGGGTGCTACACGGGGTCCCGCGGGACCTCGACCAGGCACACCTGAACCGCCTG 1104
                                                                                                                                                                                           CCTCCCACCATGAAGATCCAGGCTCGCCTCTGCAGAACCCAAAGGATGCTGAAGAAGAGA 1357
                                                                                                                                                                                                                                         GTCAAGCTGAAAATGGACCTGTTCTACAGGAACTCAGCTGACTTGGAGCAGTTGTATGGG 1344
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                                                                                                                                 GGCTACAATCCCAACAGGGTGTTTTTCCTGAATGTGCCATTTGATTCCATCATGGAGCGG
                                                                                                                                                              1178 GCCTACAATCCCAACAGGGTGTTTTTCCTGAATGTGCCATTTGATTCCATCATGGGGGG
                                                                                                                                                                                 CTGACTCTGAGAAGAATTGATCCAGTCACTGGGGAAAGGTACCACCTCATGTACAAGCCA
       CCGAGGGTGCTGCTCGGGCCTGTGGGCAGTGGGAAAAGTCTGCAGGCCGCCCTCCTG
                GATAGGACCACGTTTGGCGAGCTCATCCAGCCCTTCTTGAAAAGGAGATGGCAGTTCCT
                                     GCCCAGAAATACAGGCTTGTCAATGTCTGTGGGCAACTGCTGAAAGAGGGCTGTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                           Human; 88; gene; pharmaceutical; diagnostic; gene therapy; tissue regeneration; cell regeneration; membrane protein; signal transduction-related protein; transcription-related protein; osteoporosis; neurological disease; cancer; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/product= "Clone TEST120244460 protein"
                                                                                                                                                                                                                                                                                                    GGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA 1440
                                                                                                                                                                                                                                                                                                            Human cDNA encoding clone TESTI20244460
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                      ADB63503 standard; cDNA; 1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-MAR-2002; 2002EP-00007401
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The invention discloses a polymucleotide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel cor its partial peptide, an antibody binding to the polympetide or risp partial peptide, an antibody binding to the polympetide or peptide of the polymucleotide, immunologically assaying the polympetide or peptide of the polymucleotide by contacting the polympetide or peptide or the antibody of the encoded protein, and observing the binding with the antibody of the encoded protein, and observing the binding between the two, a transformant carrying the polymucleotide in an observing the polymucleotide in an observing the polymucleotide in an observing the polymucleotide in an observing the polymucleotide in the correction as primer for synthesising the polymucleotide or as a probe of proteins are useful as pharmaceutical agents and many disease-related proteins for regulation of their expression and atlayostic marker or medicines for regulation of their expression and activity, or as targets of gene therapy. The genes are involved in tissue and/or cell cranscribtion-related proteins, signal transduction-related proteins, corrected proteins, and genes concoing them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding them can be used as indicacors for diseases (e.g. osteoporosis, encoding the polymore presented is a cDNA
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448 GTGGTGATCTGTATCTGCTCTCATGGTGGCTGGATGGCATCCCTGAGACGCGTG 507
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   207
                                                                                            New polynucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Grececagartictaltattagerecaceceteaggaaaacaacaatageatige
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       169 GTGCCCAGGATTGTAATATTAGGTCCACCGCCTCAGGGAAAACAACAATAGCAATGTGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1619 BP; 397 A; 469 C; 425 G; 328 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                 Claim 1; Page; 222pp; English
                                                                                                                                                                                        as targets of gene therapy.
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Best Local Similarity 93.3
Matches 1272; Conservative
2003-450961/43.
                                        P-PSDB; ADB65473
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(first entry)

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ds; gene; cytostatic; antidiabetic; anorectic; cerebroprotective; uncuroprotective; antiinflammatory; gene therapy; antisense therapy; thyromimetic; NOVX; pathology; cancer; diabetes; obseity; endocrine disorder; Cas disorder; inflammatory disorder; chromosome mapping; tissue typing; predictive medicine.
                                      Human NOVX polypeptide coding sequence SEQ ID NO: 127.
                                                                                                                                                                 04-JUN-2001; 2001US-0295607P.
04-JUN-2001; 2001US-029561P.
06-JUN-2001; 2001US-029561P.
06-JUN-2001; 2001US-029561P.
11-JUN-2001; 2001US-029561P.
12-JUN-2001; 2001US-0295573P.
12-JUN-2001; 2001US-0297567P.
14-JUN-2001; 2001US-0297567P.
15-JUN-2001; 2001US-0297567P.
15-JUN-2001; 2001US-0299230P.
22-JUN-2001; 2001US-0299230P.
22-JUN-2001; 2001US-0299313P.
23-JUN-2001; 2001US-039930P.
24-JUN-2001; 2001US-039939P.
25-JUN-2001; 2001US-039939P.
25-JUN-2001; 2001US-039939P.
25-JUN-2001; 2001US-039939P.
25-SEP-2001; 2001US-030839P.
25-SEP-2001; 2001US-030839P.
25-SEP-2001; 2001US-030839P.
27-FEB-2002; 2001US-0313465P.
27-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
22-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359934P.
27-FEB-2002; 2002US-0359944P.
                                                                                                                                                    04-JUN-2002; 2002WO-US017443
                                                                                                     Homo sapiens.
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  AGATTTATCACACCACCTTTGACTGGCCACCCGAATCTGAAATCCAGAACCGTCTCATGG
                                                                          TCGTCAGGGTCATTCCCTCCTACCCCAAAATCCTCAAAGTCATCAGTGCTGACCAGCCAT
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Agee ML, Anderson DW, Berghs C, Casman SJ, Catterton E, Dipippo VA, Edinger SR, Eisen A, Ellerman K, Gangolli EA; Gerlach VL, Gorman L, Guo X, Herrmann JL, Hjalt T, Ji W, Kekuda R; Khramtsov NV, Li L, Liu X, Malyankar UM, Miller CB, Millet I; Ort T, Padigaru M, Patturajan M, Pena CEA, Rastelli L, Rieger DK; Rothenberg ME, Shenoy SG, Shimkets RA, Smithson G, Spaderna SK; Spytek KA, Stone DJ, Vernet CAM, Zhong H, Zhong M, Alsobrook JP; (CURA-) CURAGEN CORP.

WPI; 2003-210149/20. P-PSDB; ADC10108.

ADC10107 standard; DNA; 1967

RESULT 6 ADC10107 ID ADC

New isolated NOVX polypeptides and nucleic acid molecules useful

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                                                                                                             The invention relates to novel isolated polypeptides, mature form of the polypeptide, a sequence that is 95% identical to the polypeptide or the polypeptide comprising one or more conservative substitutions. The NOVX polypeptide is useful for treating or preventing a pathology associated with the polypeptide e.g. disorders associated with aberrant expression or activity of the polypeptide, such as cancer, diabetes, obesity, and endocrine, CNS and inflammatory disorders. They can also be used in various detection and screening assays, chromosome mapping, tissue typing and predictive medicine. This sequence corresponds to the coding sequence for one of the polypeptides of the invention.
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treating, preventing and diagnosing pathological conditions with NOVX-associated disorders, such as cancer, obesity, diabetes and inflammatory or CNS diseases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is a cDNA encoding human 27802 adenylate kinase. The 27802 protein and its corresponding nucleotide sequence is useful for andlow and all the corresponding nucleotide sequence is useful for differentiative, neurological, inflammatory, lymphatic, cardiovascular, differentiative, neurological, inflammatory, lymphatic, cardiovascular, immune, respiratory and haematological disorders. 27802 sequence is useful for treating immune disorders (e.g., Crohn's disease), disorders involving blood vessels (e.g., atherosclerosis), disorders involving blood vessels (e.g., atherosclerosis), disorders involving blood vessels (e.g., atherosclerosis), disorders involving blood vessels (e.g., aptendic lupus expthematosus), disorders involving brain and lymph nodes (e.g., acquired immune disorders involving precursor T-cell s (e.g., aptendic lupus expthematosus), disorders involving precursor T-cell neoplasms. 27802 sequence is useful for modulating cellular growth and/or cellular metabolic pathways, particularly for regulating one or more proteins involved in growth and companies and plantang tissue typing, forensic biology), preventive creations involved magnetic tassays, detection assays (e.g., antibody are useful in screening assays, detection assays (e.g., chromosomal mapping, tissue typing, forensic assays, monitoring clinical crials and pharmacogenomics) and in methods of treatment
219. .992
/*tag= b
/note= "This region is specifically referred in claim 2"
219. .386
/*tag b
387. .992
                                                                                                                                                                                                                                                                                                                                                                                             New adenylate kinase polypeptide for diagnosing/treating cellular
proliferative and/or differentiative, neurological, immune, inflammatory,
lymphatic, cardiovascular, respiratory and hematological disorders.
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                                                                                                                                             /product= "Human mature 27802 adenylate kinase"
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Pred. No. 8.3e-259;
0; Mismatches 2; Indels 192;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Fig 1; 108pp; English.
                                                                                                                                                                                                                                                                                                                           Chun M;
                                                                                                                                                                                                                                  12-FEB-2001; 2001WO-US004573.
                                                                                                                                                                                                                                                               10-FEB-2000; 2000US-0181705P.
                                                                                                                                                                                                                                                                                           (MILL-) MILLENNIUM PHARM INC.
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Best Local Similarity 86.5%;
Matches 1246; Conservative
                                                                                                                 387. .992
/*tag= c
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P-PSDB; AAE07843.
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                                        misc_feature
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                                                                                                               mat_peptide
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/*tag= a /product= "Human 27802, adenylate kinase protein" /product= "Human 27802, adenylate kinase protein" 219. 774 /*tag= b /note= "This region is specifically claimed as SEQ ID NO: 23 in claim 1 of the specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to novel proteins including ATPase-like proteins, phosphatidylserine synthase-like proteins, DNA fragmentation factor-like proteins or adenylate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated polypeptides including phosphatidylserine synthase-like polypeptide useful for identifying a compound which binds and modulates activity of the polypeptide useful for treating diseases, e.g. cancer.
                                                                                                                                                                                                                                                                              Human; ATPase-like protein; phosphatidylserine synthase-like protein; DNA fragmentation factor-like protein; vesicle-mediated transport; phospholipid scramblase-like protein; adenylate kinase protein; organelle biogenesis; cell-cycle requlation; primary brain lymphoma; protein degradation; splenomegaly; pulmonary embolism; Hodgkin disease; atreafia; tuberculosis; astrocyte; apoptosis; neurodegenerative disease; DNA fragmentation; autoimmune disorder; cancer; blood clotting system; immune system; haematopoientic; hypertension; systemic sclerosis; atherosclerosis; leukopaenia; oligodendrocyte; gene; ss.
GCTGACTTGGAGCAGTTGTATGGGTCGGCCATCACCCCTCAATGGGGACCAGGACCCATAC
                                                          1381 ACAGICITICGAATACATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA
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29-FEB-2000; 2000US-01865947P.
29-FEB-2000; 2000US-0186234P.
12-FEB-2001; 2001US-00791677.
21-FEB-2001; 2001US-00790179.
21-FEB-2001; 2001US-00790180.
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                                                                                                                                                                 AAD61170 standard; cDNA; 1452
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2000US-0185946P.
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                                                                                                                                                                                                                                                         Human 27802,
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cc kinase proteins and polynucleotides encoding such proteins. The human ATPRASE-like molecules are useful for modulating ATPRASE function. They are useful in modulating organelle biogenesis, cell-cycle regulation, protein degradation and vesicle-mediated transport. They are also useful for treating disorders associated with aberrant ATPRASE-like expression or activity such as splenomegaly, pulmonary embolism, atrests and primary constitution to biosphatidylserine synthase-like modulating the biosphatidylserine synthase-like molecules are useful for treating disorders associated with aberrant human phosphatidylserine (FS). They human phosphatidylserine constructs and Hodgkin disease. The human 5698, DNA fragmentation factorastrocytes and Hodgkin disease. The human 5698, DNA fragmentation factoring matrocytes are useful for modulating appototic events, including DNA fragmentation. The human 5698 molecules are useful for modulating apportor events, including DNA fragmentation. The human 5698 molecules are useful for treating diseases condulating immune, haematopoietic and blood clotting systems. They are useful for treating diseases and cancer. The modulating immune, haematopoietic and blood clotting systems. They are to spatial for treating a disorder associated with aberrant human construction and phospholipid scramblase-like modulating cellular growth and/or cellular metabolic pathways. They are conseful for treating hypertension, atherosclerosis and oligodendrocytes. The present sequence is human 27802, adenylate kinase connective.
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Pred. No. 8.3e-259;
0; Mismatches 2; Indels 192; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1452 BP; 398 A; 414 C; 364 G; 276 T; 0 U; 0 Other;
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Best Local Similarity 86.5%;
Matches 1246; Conservative (
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KW acquired immune deficiency syndrome.  XX XX Example Septems.  XX XX XX XX XX XX XX XX XX XX XX XX X	23-AUG-2000) 30-AUG-2000) 30-SEP-2000) 01-SEP-2000) 01-SEP-2000) 01-SEP-2000) 06-SEP-2000) 06-SEP-2000) 06-SEP-2000) 08-SEP-2000) 08-SEP-2000) 08-SEP-2000) 08-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000) 14-SEP-2000)
	GTTGTATGGGTCGGCCATCACCCTCAATGGGGACCCAGACCCATAC GTTGTATGGGTCGGCATCACCCTCAATGGGGACCCAGGACCCATAC GTTGTATGGGTCGGCATCACCCTCAATGGGGACCAGGACCCATAC CATCGAGAGTGGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA  CATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA  CATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA  TATCAGAGTGGGATCATTAATCCCCTGCCCAAGAAATCCCCTGA  TATCAGAGTGGGATCATTAATCCCTGCCCAAGAAAATCCCCTGA  TATCAGAGTGGGATCATTAATCCCTGCCCAAGAAAATCCCCTGA  TATCAGAGTGGATCATTAATCCCTGCCCAAGAAAATCCCCTGA  TATCAGAGTGGATCATTAATCCCTGCCCAAGAAAATCCCCTGA  TATCAGAGTGGATCATTAATCCCTGCTGCAAGAAAATCCCCTGA  TATCAGAGTGGATCATTAATCCTTGCTGAAAATCCCTTGAAATCCCTTGAAATCCTGCTAATCATTAATCCTGCTAATCATTAATCCTGCTAATCAATC

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08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
20-OCT-2000;
01-NOV-2000;
                                                    08-NOV-2000;
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Novel polypeptides useful for diagnosing, treating, preventing and/or prognosing disorders related to the proteins, including cancers, immune disorders and neuronal disorders. Claim 1; SEQ ID NO 257; 880pp; English. Ruben SM (HUMA-) HUMAN GENOME SCI INC Rosen CA, Barash SC, WPI; 2001-465460/50. P-PSDB; AAU17305. 

The invention relates to novel isolated polypeptides (I), and polymucleotides (II). (II) and the antibody to (I) are useful for diagnosing, preventing and treating diseases including immune system disorders (e.g. congenital and acquired immunodeficiencies, autoimmune cc disorders (e.g. congenital and acquired immunodeficiencies, autoimmune disorders (e.g. thematoid arbitritis), inflammatory conditions, organ transplant rejections and graft versus host disease, infectious diseases (c.g. thepatitis C), bleeding disorders, haemoglobin abnormalities and other blood-related disorders (sickle cell anemia), myeloproliferative disorders (e.g. disorders, primary haematopoietic disorders, hyperproliferative disorders (c.g. daucher, s disease, Parkinson's disease), chromosomal abnormalities (bown syndrome), ischaemic injury (e.g. stroke), renal disorders (e.g. communionephritis), cardiovascular disorders (e.g. arrhythmia), cepithelial cell proliferation, endocrine disorders (e.g. Addison's disease), reproductive system disorders, gastrointestinal disorders (inflammatory disorders), liver disorders (cirrhosis), as stimulators of cirrhosis), as fimulators of higher affinity antibodies, and as a means to induce tumour proliferation higher affinity antibodies, and as a means to induce tumour proliferation hathologies e.g. acquired immune deficiency syndrome (ADS). AAS28976-CS sequences and PCR primers of the invention

8 10; Indels 43; Gaps Query Match
71.4%; Score 1027.6; DB 4; Length 1223;
Best Local Similarity 95.6%; Pred. No. 1.8e-257;
Matches 1153; Conservative 0; Mismatches 10; Indels 43;

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Parkinson's
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated polypeptide useful for diagnosing and treating immunosuppressive conditions such as autoimmune disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 3; SEQ ID NO 257; 345pp; English.
                                                                31-JAN-2000; 2000US-0179065P.
28-UJN-2000; 2000US-0216802P.
07-UJL-2000; 2000US-0216802P.
11-UJL-2000; 2000US-0216802P.
11-UJL-2000; 2000US-0216802P.
11-UJL-2000; 2000US-0217495P.
11-UJL-2000; 2000US-0217495P.
14-MJG-2000; 2000US-0220954P.
14-MJG-2000; 2000US-0225267P.
14-MJG-2000; 2000US-0225267P.
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14-MJG-2000; 2000US-0225267P.
14-MJG-2000; 2000US-0225267P.
14-MJG-2000; 2000US-0225347P.
15-MJG-2000; 2000US-0225347P.
15-MJG-2000; 2000US-0225347P.
15-SEP-2000; 2000US-0225347P.
15-SEP-2000; 2000US-0225347P.
25-SEP-2000; 2000US-0225342P.
25-SEP-2000; 2000US-0235347P.
25-SEP-2000; 2000US-0235347P.
25-SEP-2000; 2000US-023534P.
25-SEP-2000; 2000US-023534P.
25-SEP-2000; 2000US-023534P.
25-SEP-2000; 2000US-023534P.
25-SEP-2000; 2000US-02353703P.
26-CCT-2000; 2000US-023535P.
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26-CCT-2000; 2000US-023535P.
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26-CCT-2000; 2000US-0235935P.
26-CCT-2000; 2000US-0235935P.
27-SEP-2000; 2000US-0235935P.
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27-SEP-2000; 2000US-0235935P.
27-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-0235935P.
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28-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-023593P.
28-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-0235935P.
28-CCT-2000; 2000US-0235935P.
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28-CCT-2000; 2000U
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P-PSDB; ADB94013.
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(RUBE/) RUBEN S M.
(BARA/) BARASH S C.
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CCTGACAGCCTCCTCATGAAGGTGCTGAGCCCCTGGACCAGCAGCAGCAGCAGCATCCAG 1041
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98; gene; human; autoimmune disease; Parkinson's disease; silicosis; gastrointestinal disease; atherosclerosis; haemophilia; thrombocytopenia; immunosuppressive agent; adjuvant; enhance immune response; higher affinity antibody induction; increased serum immunoglobulin concentration.
                                                          GCTCTGAGGATCCAGACCCTGGGGATCACACCCAGACACGTCATTGTGCTGAGTGCTCCA
                     Human cDNA encoding a novel protein #247.
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pathological condition in a subject, by determining the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the condition based on the presence or amount of expression of the polypeptide, which involves contacting the polypeptide which involves contacting the polypeptide or the polypeptide. The polypeptide or the nucleic acid encoding the polypeptide. The polypeptide or the nucleic acid encoding the polypeptide is useful for preventing, or ameliorating a medical condition, which involves administering the polypeptide or the nucleic acid to a mammalian subject. The nucleic acid subjectivition or a susceptibility to a pathological condition or a subject, which involves determining the presence or absence of a mutation in The nucleic acid, and diagnosing a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility to a pathological condition or susceptibility antibody are useful as immunosuppressive agents, the nucleic acid and the antibody are useful as immunosuppressive agents or specification but was obtained in electronic format direct from useful direct from
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Sequence 1223 BP; 305 A; 355 C; 310 G; 245 T; 0 U; 8 Other;

423 441 501 542 111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 111 381 85 AACATGCTGGAGCAACTCCTGATCCACCAGCCCGAAGATCCCATCCCTTCATGATCCAG 144 CACTTGCATAGAGACAACGACAATGTGCCCCAGGATTGTAATATTAGGTCCACCCGCCTCA 204 243 263 303 321 6 ATGGACGCCACTATCGCCCCGCACCGTATCCCCCCCGAGA-GCCCCAGTAC-GGGAGGAG 63 61 AACCACATCTTCGAGTTGATG----CAG 84 GCTCTGAGGATCCAGACCTGGGGATCACACCCAGACACGTCATTGTGCTGAGTGCTCCA 244 GGGAAAAACAATAGCAATGTGGCTCTGCAAAATTCTGAAACAGCAGAGTCTCCTCACCCT GGA-GAACCTGATCTTAAATGAGTTTTCCTATACGGCCACCGAAGCCAG-AAGGCTTTAT CTGCAAAGGAAGACAGTTCCCAGCGCGCTGCTCGTCCAGCTGATTCAGGAACGCCTGGCT GAAGAATTGCATCAAGCAGGGTGGATTCTGGATGGCATCCCTGAGACGCGTGAGCAG 1 ATGGACGCCACTATCGCCCCCGCACCGTATCCCCCCCGAGATGCCCCCAGTACGGGGAGGAG GGGAAAACAACAATAGCAATGTGGCTCTGCAAACATCTG-AACAGCAGTCTCCTCACCCT Gaps DB 10; Length 1223; 43; 10; Indels 71.4%; Score 1027.6; DB 10 95.6%; Pred. No. 1.8e-257; tive 0; Mismatches 10; Query Match Best Local Similarity 95.6 Matches 1153; Conservative 145 304 322 364 382 424 442 483 502 205 264 g g ò 유 ઠે 셤 ò 요 셤 ò 셤 ò ઠ 셤 ð ò

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1053 GCTACACGGCGTCCCGCGGGACCTCGACCAGGCACACCTGCTGAACCGCCTGGGCTACAA 1112
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                                                                                            GCTGCTGCTCGGGCCTGTGGGAAAAGTCTGCAGGCCGCCCTCCTGGCAAA
                                                                                                                                                                                        ATACAGGCTTGTCAATGTCTGCTGTGGCCAACTGCTGAAAGAGGCCTGTGGCAGATAGGAC
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corresponding CDNAs. A composition containing PKIN agonist is useful for

treating a disease or condition associated with decreased expression of

EXIN and a composition comprising PKIN antegonist is useful for treating

a disease or condition associated with overexpression of PKIN. The

disorders include cancer (leukaemia, adenocarcinoma, lymphoma melanoma,

myeloma, sarcoma, teratocarcinoma, Hodgkin's disease); immune disorder

(Acquired immune Deficiency Syndrome (AIDS), asthma, Addison's disease,

attorimmune thyroiditis, gout, bronchitis, cohn's disease, diabetes

autorimmune thyroiditis, gout, bronchitis, Crohn's disease, diabetes

mellitus, multiple sclerosis, good pasture's syndrome, graves disease,

stendarchitis, sosteoporosis, pancreatitis, psoriasis, Reiter's syndrome,

rheumatoid archritis, Sjogen's syndrome, uveitis, ulcerative colitis,

pacterial, parasitic, fungal, viral, proticosal and helminthic infections,

rheumatoid archritis, slogen's syndrome, uveitis, ulcerative colitis,

parasitis, syndrome, hypothyroidism, cerebral palsy, cataracts; cardio syscular disease (arteriovenous fistula, hyportension, vasculitis,

cushing's syndrome, hypothyroidism, cerebral palsy, cataracts; cardio syscular disease (arteriovenous fistula, hyportension, vasculitis,

ischeemic heart disease, chronic bronchitis, lung tumours); lipid

disorder (fatty liver, Fabry's disease, Niemann-bick's disease,

hypotholesterolaemia, obesity). PKIN DNA is useful for assessing toxicity

print and compound and in gene therapy. The present sequence is human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New polypeptides, useful for diagnosing, treating or preventing disorders of growth and development, cardiovascular and lipid, and diseases such as cancer, comprise human kinase polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       632
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Gandhi AR, Tribouley CM, Walia NK, Yao MG, Lu DAM, Greenwald SR;
Ramkumar J, Griffin JA, Kearney L, Burford N, Nguyen DB, Tang YT;
Baughn MR, He A, Thornton M, Hafalia A, Patterson C, Gururajan R;
Lo TP, Khan F, Recipon SA, Azimzai Y, Policky JL, Ding L;
Grether M, Elliott VS, Thangavelu K, Batra S, Ison CH;
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                                                                                                                            15-JUN-2000; 2000US-0213673P.
23-JUN-2000; 2000US-0213667P.
30-JUN-2000; 2000US-0215651P.
13-JUL-2000; 2000US-021860SP.
25-AUG-2000; 2000US-021837ZP.
                                                                                    14-JUN-2001; 2001WO-US019444
                                                                                                                                                                                                                                                                                                  (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-090207/12.
P-PSDB; AAE16279.
                                     20-DEC-2001
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                                                                                                                                                                                       CTGACCTATGTCCAAAGCAACCATCGTACTAATGCCCCGTTCACCCCGAGGGTGCTGCTG
                                                     GAGACGGCTCAGAAACTGCTGGAGTATCATAGGAACATCGTCAGGGTCATTCCCT
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2000US-00620312.
2000US-0063450.
2000US-0062191.
2000US-00633036.
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2000US-00488725.
2000US-00552317.
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19-JUL-2000; 2
03-AUG-2000; 2
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25-APR-2000;
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29-NOV-2000;
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                                                                                                                                                                                                                                                            Q.
                                                                                                                                                                                                                                              Wang D;
, Zhao (
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Zhang J
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                                                                                                                                                                                                                                                                                                                                                             rel nucleic acids and polypeptides, useful for treating central nervous system injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 761; DB 4; Length 17
Pred. No. 7e-188;
0; Mismatches 70; Indels
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Yang Y,
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irman T, Xu C, )
Drmanac RT;
                                           23-DEC-1999; 99US-00471275.
21-JAN-2000; 2000US-00488725.
25-APR-2000; 2000US-00552317.
20-JUN-2000; 2000US-0055317.
19-JUL-2000; 2000US-0059312.
03-AUG-2000; 2000US-00653450.
14-SEP-2000; 2000US-00653450.
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cal Similarity 92.0%;
803; Conservative (
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Wehrman T,
             26-DEC-2000; 2000WO-US034263
                                                                                                                                                                                  2000US-00727344
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Wang Z, Wehrr
Goodrich R, I
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P-PSDB; AAM38895.
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Best Local Similarity
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                                                                                                                                                                                    29-NOV-2000;
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CC immunosuppressant and cytostatic activity. The polynuclectides are useful in gene therapy. A composition containing a polypeptide or polynuclectide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral nervous contains and central nervous system disease, such as learned neuropathies and central nervous system disease, such as lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as Immune system suppression, and thrombolytic activity, chemotextic/chemokinetic activity, haemostatic and thrombolytic activity, arthritis and inflammation, leukaemias and construction of the sequence data for this patent did not form the part of the printed specification
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Wang D;
Zhao QA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGAGTTTTCCTATACGGCCACCGAAGCCAGAAGGCTTTATCTGCAAAGGAAGACAGTT 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCAGCGCGCTGCTCCAGCTGATTCAGGAACGCCTGAAGAGAGATTGCATCAAG 399
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     Ren F, Wa
Zhang J,
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43.0%; Score 619; DB 4; Length 721;
Best Local Similarity 100.0%; Pred. No. 5.4e-151;
Matches 619; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                             Sequence 721 BP; 178 A; 212 C; 188 G; 143 T; 0 U; 0 Other;
     Qian XB,
Yang Y,
  Liu C, Asundi V, Chen R, Ma Y, Wang Z, Wehrman T, Xu C, Xue AJ, Goodrich R, Drmanac RT;
                                                                                                                        Claim 1; SEQ ID NO 3826; 10078pp; English.
                                                 WPI; 2001-442253/47.
P-PSDB; AAM40681.
Tang YT,
Wang J, 1
Zhou P, 0
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Human; dithp; diagnostic and therapeutic polynucleotide; gene; bone; cell proliferative disorder; cancer; tumour; autoimmune disorder; brain; inflammatory disorder; viral infection; bacterial infection; seizure; fungal infection; parasitic infections; developmental disorder; breast; endocrine disorder; infections; developmental disorder; breast; endocrintestinal disorder; rerapport disorder; gene therapy; kidney; adrenal gland; bone marrow; lung; ovary; pancreas; prostate; spleen; skin; testis; thymus.
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CTCGGGCCTGTGGGCAGTG 838
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05-SEP-2000; 2000US-0229748P.
05-SEP-2000; 2000US-0229749P.
05-SEP-2000; 2000US-0229750P.
05-SEP-2000; 2000US-0229751P.
06-SEP-2000; 2000US-0230581P.
06-SEP-2000; 2000US-0230514P.
06-SEP-2000; 2000US-0230514P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-0230518P.
06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
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06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
06-SEP-2000; 2000US-023059P.
07-SEP-2000; 2000US-023059BP.
07-SEP-2000; 2000US-02309BP.
07-SEP-2000; 2000US-02309BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Human dithp polynucleotide #3
                                      703 CTCGGGCCTGTGGGCAGTG
                                                                                                                                                                                                                                     ABK71537 standard; cDNA; 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-AUG-2001; 2001WO-US027127
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                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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P-PSDB; ABG59945.
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820
                                                                                                                                                                                                                                                                                                           ABK71537;
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vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia; nervous system disorder; arthritis; inflammation; ss.

Homo sapiens.

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119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTGATTCAGGAACGCCTGGCTGAAGAGTTGCATCAAGCAGGCTGGATTCTGGATG 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCATCCCTGAGACGCGTGAGCCTCTGAGGATCCAGACCCTGGGGGATCACACCCAGAC 478
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The sequences of the invention are used in the treatment and diagnosis of cell proliferative disorders (e.g. atherosclevosis, cirrhosis), cancers (e.g. tumours of the adrenal gland, bone, bone marrow, brain, breast, cervix, kidney, lung, ovary, pancreas, prostate, skin, spleen, testis or thymus), autoimmune/inflammatory disorders (e.g. asthma, bronchitis, psoriasis, osteoporosis), viral infections, bacterial infections, fungal infections, parastric infections, developmental disorders (e.g. anaemia, epilepsy), seizure disorders (e.g. cerebral palsy, spina bifida), endocrine disorders (e.g. thrombosis, aneurysm), metabolic disorders (e.g. chrombosis, aneurysm), metabolic disorders (e.g. ulcerative colitis, lysinuria) and transport disorders (e.g. wyotonic dystrophy, catatonia, peripheral neuropathy). Sequences ABK71535-ABK71809 represent human dithp polynucleotides of the invention
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                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                      Length 615;
                                                                                                                                                                                                                                                    Sequence 615 BP; 165 A; 181 C; 153 G; 116 T; 0 U; 0 Other;
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                                                                                                                                                                                                                                                                                    Score 574; DB 6; I
Pred. No. 2.8e-139;
0; Mismatches 0;
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Local Similarity 99.7%;
hes 596; Conservative (
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Lieic acids encoding polypeptides with cytokine-like activities, useful diagnosis and gene therapy.

Claim 1; Page 714-715; 6221pp; English.

Cao Y; R, Wang ZW;

Xu C, ,

Asundi V, Zhou P, X J, Zhang J, Ren F, Goodrich R;

Drmanac RT, A Wang D, Wang J, Wejhrman T, G

Liu C,

Tang YT, Ma Y, Zh≀ Xue AJ,

WPI; 2001-476283/51. zhao QA, W

P-PSDB; AAM78417

Nucleic ij

27-APR-2000; 2000US-00560875. 20-UIN-2000; 2000US-00598075. 19-UIL-2000; 2000US-00620325. 01-SEP-2000; 2000US-00654936. 15-SEP-2000; 2000US-00663561.

05-FEB-2001; 2001WO-US004098

09-AUG-2001

03-FEB-2000;

20-OCT-2000; 2000US-00693325 30-NOV-2000; 2000US-00728422

(HYSE-) HYSEQ INC.

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The invention relates to polynuclectides (AAK51456-AAK53435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polyment of peptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haemacopoiesis regulating activity, tissue growth factor activity, immunomodulatory activity and activity, inhibin activity and may be useful in the diagnosis and/or treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111
(AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1036 ATCCAGAAAGGCTGGGTGCTACACGGCGTCCCGGGGACCTCGACCAGGCACACCTGCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence listing were missing at the time of publication
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Best Local Similarity 99.8%; Pred. No. 2.4e-110;
Matches 464; Conservative 0; Mismatches 1;
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1035

Gaps

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Indels

Length 997;

1095

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1275

1215

646

06-NOV-2001

AAK51550

RESULT 15 AAKS1550

q	647 TACAAGCCACCTCCCACCATGGAGATCCAGGCTCGCCTCCTGCAGAACCCCAAAGGATGCT 706
ò	1276 GAAGAGCAGGTCAAAAATGGACCTGTTCTACAGGAACTCAGCTGACTTGGAGCAG 1335
q	707 GAAGAGCAGGTCAAGCTGAAAATGGACCTGTTCTACAGGAACTCAGCTGACTTGGAGCAG 766
ò	1336 TTGTATGGGTCGGCCATCACCCTCAATGGGGACCAGGACCCATACACAGTCTTCGAATAC 1395
ପୁ	767 TIGITALGGGTCGGCCATCACCCTCAATGGGGACCAGGACCCATACACACAC
ò	1396 ATCGAGAGTGGGATCATTAATCCCCTGCCCAAGAAAATCCCCTGA 1440
q	827 ATCGAGAGTGGGATCATTAATCCCTGCCCAAGAAATCCCCTGA 871
Search Job ti	Search completed: March 19, 2005, 20:53:48 Job time : 787 secs

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AC015488 Homo sapi AL161726 Homo sapi AC064719 Homo sapi AL45645 Human DNA AC15306 Rattus no AC118353 Rattus no AC173252 Mouse DNA AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Mus muscu AC073291 Homo sapi AC06668 Oryza sat AC06668 Oryza sat AC06688 Oryza sat AC06668 Oryza sat AC06668 Oryza sat AC06668 Oryza sat AC06668 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat AC06688 Oryza sat

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AX887632 BD027242 BD027242 AX061825 AX066688 CR389850 CR389850 AX169824 AX169824 AX169824 AX169824 AX169826

1217 1433 29252 29252 110000 110000 110000 19805 1798

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61 AACCACATETTCGAGTTGATGCAGAACATGCTGGAGCAACTCCTGATCCACCAGCCCGGAA 120
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S Yu,X., Xie,Q., Abuin,A. and Walke,D.W.

Human kinases and polymucleotides encoding the same
AL Patent: US 6744010-A 1 11-MAY-2004;

Location/Qualifiers

1. 1440

/mol_type="genomic DNA"
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Isogai,T., Sugiyama,T., Otsuki,T., Wakamatsu,A., Sato,H., Ishii,S.,
Yamamoto,J.I., Isono,Y., Hio,Y., Otsuka,K., Nagai,K., Irie,R.,
Tamechika,I., Seki,N., Yoshikawa,T., Otsuka,M., Nagahari,K. and
                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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Machon Y.

Full-length cDNAs

Latent: EP 1293569-A 1381 19-MAR-2003;

Helix Research Institute (JP); Research Association for Biotechnology (JP)

S Location/Qualifiers

1. 1579

/mol type="unassigned DNA"
/db_xref="taxon:9606"
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"S (bases 1 to 1579)

Isogai,T., Otsuki,T. and Sugiyama,T. blinetect Submission

Direct Submission

Direct Submission

Submitted (24-0CT-2001) Takao Isogai, Helix Research Institute,
Genomics Laboratory; 1532-3 Yana, Kisaxazu, Chiba 292-0812, Japan
(E-mail:genomics@hir.co.jp, Tel:81-438-52-395, Fax:81-438-52-3986)

NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; CDNA full insert sequencing:
Research Association for Biotechnology (RAB); DNA library
construction: Helix Research Institute (HRI) (supported by Japan
Key Technology Center etc.); 5- & 3'-end one pass sequencing: RAB,
HRI, and Biotechnology Center', National Institute of Technology and
Rvaluation; clone selection for full insert sequencing: RAB and
                                   Ota,T., Suzuki,Y., Nishikawa,T., Otsuki,T., Sugiyama,T., Irie,R., Wakamatsu,A., Hayashi,K., Sato,H., Nagai,K., Kimura,K., Makita,H., Sekine,M., Obayashi,M., Nishi,T., Shibahara,T., Tanaka,T., Ishibahara,T., Tanaka,T., Ishibahara,T., Tanaka,T., Nagahari,K., Murakami,K., Yasuda,Y., Isono,Y., Nagahari,K., Murakami,K., Yasuda,Y., Isono,Y., Nagahari,M., Magatsuma,M., Shiratori,A., Sudo,H., Hosoiri,T., Kawi,Y., Kodaira,H., Kondo,H., Kikawa,E., Omura,Y., Abe,K., Yokoi,T., Furuya,T., Yamashita,M., Yamazaki,M., Yamazaki,M., Yamazaki,M., Yamazaki,M., Yamashita,H., Yamashita,H., Tanaka,M., Tanai,H., Xinata,M., Yatahashi-Euji,A., Hara,H., Tanase,T., Nomura,Y., Togiya,S., Komai,F., Hara,B., Tanase,T., Nomura,Y., Togiya,S., Komai,F., Hara,B., Tanase,T., Nomura,Y., Musashino,K., Yuuki,H., Oshima,A., Sasaki,N., Aotsuka,S., Moriya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya,S., Moniya
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Listy bp mRNA linear PRI 30-JAN-2004
thomo appiens CDNA FLJ32704 fis, clone TESTI2000591, weakly similar
AKO57266
AKO57266. I GI-16552887
oligo capping; fis (full insert sequence).
Homo sapiens (human)
Homo sapiens (human)
Homo sapiens (human)
Mammalia; Rutheria; Primates; Cararthini; Hominidae; Homo.
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I (bases 1 to 1656)

Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,

Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,

Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,

Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,

Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,

Stapleton,M., Soares,M.B., Bonaldo,M.F., Casvant,T.L.,

Scheetz,T.B., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,

Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,

Abramson,R.D., Mullahy,S.J., Bosak,S.A., McKernan,R.J., Mullahy,S.J.,

McKernan,K.J., Malek,J.A., Qay,L.J., Hulyk,S.W.,

Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,

Villalon,D.K., Muzny,D.M., Sodergran,E.J., Lu,X., Gibbs,R.A.,

Fahey,J., Helton,E., Ketteman,M., Madan,A., Young,A.C., Shevthenko,Y.,

Butfard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,

Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,

Butterfield,X.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,

Schnerch,A., Schelin,J.E., Jones,S.J. and Marra,M.A.

Human and mouse cDNA sequences
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/tranalarion="MOATHAPHRIPPEMPGYBELLYHTPEMPGHTUTERHUTGREYTATE

ARRIYLQRKTVPBALLVQLIQBRLABEDCIKQGWILDGIPETREQALRIQTLGITPRH

VILGARPQTVIJERNIGGKTIDPQTGBITTHTPEMPERSEIQNRLMVPBPISELETAQK

LLEYHRNIVWYIPSYPEKILKVISADQPCVDVFYQALTYVQSNHRTNAPFTRRYLLLGF

VGSGKSLQAALLAQKYRLVNVCGQLILKEAVADRTTFGELIQPFFEKEMAVPDSILMK

VLOGRLQQDQOTQGGWTHGYPBLLQARLLGNHRLGYNBNRVFFINVPPDSIMBRLTLR

RIDPYTGERYHLAKPPPTMEIQARLLQNPKDAEBGVKLKMDLFYRNSADLEQLYGSA

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This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 22749186.
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                                                                                                                               NIH-MGC Project URL: http://mgc.nci.nih.gov
COntact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Life Technologies, Inc.
Tissue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing Dy: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC.
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: ang@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, H.,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
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                                         Strausberg, R.
Direct Submission
Submitted (24-JUL-2002) National Institutes of Health, Mammalian Submitted (24-JUL-2002) National Institutes Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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 (26), 16899-16903 (2002)
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'gene="C9orf98"
                             (bases 1 to 1656)
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AUTHORS
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VIVLSAPDTVLIBRNLGKRIDPQTGEIYHTTFDWPPESBIONRLMVPBDISELETAQK
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Series: IRAK Plate: 107 Row: i Column: 5
This clone was selected for full length sequencing because it
passed the following selection criteria: Hexamer frequency ORF
analysis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product="chromosome 9 open reading frame /protein id="AAH50576.1" /db xref="GI:30046788" /db_xref="LocusID:158067"
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100.0%; Pred. No. 0;
tive 0; Mismatches
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                                                                                                                           Location/Qualifiers
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Matches 1440; Conservative
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Klausberg R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Alschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer (C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.L., Wang, J., Heiseh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
Morley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Glbbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Youngh, A.C., Shevchen, K.D.,
Boutfeard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Boutfeard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Skayuta, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
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                AACCCAAAGGATGCTGAAGAGCAGGTCAAGCTGAAAATGGACCTGTTCTACAGGAACTCA 1320
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2185)
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Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
R. M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (08-APR-2003) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.  AUTHORS Isogai, T., Sugiyama, T., Otsuki, T., Wakamatsu, A., Sato, H., Ishii, S., Yamamoto, J., Isomo, Y., Ho, Y., Otsuka, K., Nagai, K., Irie, R., Tamechika, I., Seki, N., Yoshikawa, T., Otsuka, M., Nagahari, K. and Masuho, Y.  TITLE Fill-length CDMA sequences  JOURNAL Patent: EP 1308459-A 1657 07-MAY-2003;  Helix Research Institute (JP); Research Association for Biotechnology (JP)  REATURES  Location/Qualifiers  Jorganism="Homo sapiens"  //db_xref="maxna" //db_xref="maxna"	State	Qy         403	148 TGTCAGGGTCATTCCTCCTCCTAAAATCCTCAAAGTCATCAGTGCTCACCACCTCTCTAATGCCCTTTTTTTT
	Db 1277 AGTGCTGACCAGCCATGTGGACGTCTTCTACCAGGCTCTGACCTATGTCCAAAGCAAC 1336  Qy 781 CATCGTACTAATGCCCCGTTCACCCGAGGCTGCTGGGCCTGTGGGCAGTGGG 840  Db 1337 CATCGTACTAATGCCCCGTTCACCCGAGGTGCTGCGGCCTGTGGGCAGTGGG 1396  Qy 841 AAAAGTCTGCAGGCCGCCCCTCGGCCGAAATACAGGCTTGTCGGCAGTGGG 1396  Db 1397 AAAAGTCTGCAGGCCCCCTCGGCCCAAAATACAGGCTTGTCAATGTCTGCTGTGGG 900	0y         1081         CAGGCACACCTGCTGAACCGCTGAGCTACCAACAGGGTTTTTTCCTGAATGTG         1140           Db         1637         CAGGCACACCTGCTGAACCGCTGAGTACCAATCCCAACAGGGTTTTTTCCTGAATGTG         1696           0y         1141         CCATTGATTCCATCATGAGGCGCTGACTGTGAGAATTGATCCAGTCACTGGGAA         1200           Db         1697         CCATTGATTCCATCATGAGGCGCTGACTCTGAGAAGAATTGATCCAGTCACTGGGGAA         1756           Qy         1201         AGGTACCACTCATGAACAGCCACCTCCCACCATGGAGAATTGATCCAGGCACTCCTGCAGGGAA         1760           Db         1757         AGGTACCACTCATGAAGAGCACCTCCCACCATGGAGAATTCACAGGAACTCAGGGAACTCA         1816           Qy         1261         AACCCAAAGGATGCTGAAGAGCAGGTCAACTGAAAATGGACTCTTCTACAGGAACTCA         1876           Qy         1261         AACCCAAAGGATGCTGAAGAGCAGGTCAACTGAAAATGGACTCTTCTTCTACAGGAACTCA         1876           Qy         1321         GCTGACTTGGAGCTGAAGAGCAGCTCACCCCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTC	RESULT 6 AX748132 LOCUS AX748132 LOCUS AX748132 LOCUS AX748132 ACESSION AX748132 VERSION AX748132 ACESSION AX748132 KEYMORGS ACMORGE Homo sapiens (human)

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Direct Submission
Submitted (04-JUL-2002) Takao Isogai, FLJ Project (HRI Team); 2-6-7
Kazusaa-Kamatari, Kisarazu, Chiba 292-0812, Japan
Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan
Remail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)
NEDO human cDNA sequencing project supported by Ministry of
Bconomy, Trade and Industry of Japan; cDNA full insert sequencing:
Research Association for Biotechnology (RAB); cDNA full insert sequencing:
Rey Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB,
HRI, and Biotechnology Center, National Institute of Technology and
Evaluation; clone selection for full insert sequencing: HRI and
Location/Qualifiers
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Sugiyama, A., Takemoto, M., Kawakami, B., Yamazaki, M., Watanabe, K., Kumagai, A., Itakura, S., Fukuzumi, Y., Fujimori, Y., Komiyama, M., Tashahiro, H., Tanigami, A., Fujiwara, T., Ono, T., Yamada, K., Fujii, Y., Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Inagaki, H., Ikema, Y., Okamoto, S., Okitani, R., Kawakami, T., Noguchi, S., Itoh, T., Shigeta, K., Senba, T., Matsumra, K., Oyama, M., Hata, H., Watanabe, M., Komatsu, T., Mizushima-Sugano, J., Satch, T., Shirai, Y., Takahashi, Y., Nakagawa, K., Okumura, K., Najase, T., Nomura, N., Kikuchi, H., Wasuho, Y., Yamashita, R., Nakai, K., Yada, T., Nakaumira, Y., Ohara, O., Isogai, T. and Sugano, S. Complete sequencing and characterization of 21,243 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fulimori, K., Tanai, H., Ishida, M., Yamashita, H., Ishida, Y., Sugiyama, T. Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishii, S., Yamamotco, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Matsuo, K., Nakamura, Y., Oshima, A., Sugiyama, T., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T. Sugano, S., NBDO human cDNA sequencing project
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Matches 1272; Conservative
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Algo capping; fis (full insert sequence).
Howo sapiens (human)
Howo sapiens
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DEFINITION

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Strausberg, R.L., Feingold, B.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetcw, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.B., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casvanth, T.L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casvanth, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Gibbs, R.A.,
Sanchez, A., Whiting, M., Madan, A., Youug, A.C., Shevchenko, Y.,
Butterfield, S.S., Krzywinski, M.I., Schlska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
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Tissue Procurement: Howard Jacobs
CDNA Library Preparation: Express Genomics
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Conter, Stanford University School of Medicine, Stanford, CA 94305
Web site: (Dickson, Wark) mcd@paxil.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
BC079446 11581 bp mRNA linear ROD 15-SEP-2004 Rattus norvegicus similar to hypothetical protein FLJ32704, mRNA (cDNA clone MGC:94995 IMAGE:7115585), complete cds.
                                                                                                                                                                                                                                                                                                                              Eukaryota; Mētazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
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/mol_tree="mana"
/db xref="caxon:10116"
/clone="mGC:94995 IMAGE:7115585"
/clone="treetis, rat (Brown Norway)"
/clone lib="NHH MGC_237"
/lab_host="DH10B"
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Contact: MGC help desk
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Rattus norvegicus
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Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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  AGTGCTGACCAGCCATGTGTGGACGTCTTCTACCAGGCTCTGACCTATGTCCAAAGCAAC
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                                                                                                                              CTTTGACTGGCCACCCGAATCTGAAATCCAGAACCGTCTCATGGTGCCAGAGACATCTC
                                                                                                                                                                           CTCCTACCCCAAAATCCTCAAAGTCATCAGTGCTGACCAGCCATGTGTGGGGCGTCTTCTA
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                                                                                                                  CITIGACTGGCCACCCGAATCTGAAATCCAGAACCGTCTCATGGTGCCAGAGGACATCTC
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                                                                  Length 995;
                                                                                           0; Indels
                                                                    60.3%; Score 868; DB 6; Le
100.0%; Pred. No. 1.6e-198;
tive 0; Mismatches 0;
/organism="Homo sapiens"
/mol_type="unsasigned DNA"
/b xref="taxon:9606"
/note="Incyte ID No: 621293CB1"
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Best Local Similarity
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RESULT 11 AX211565

PAT 06-SEP-2001 ö 276 336 936 120 396 456 240 516 300 576 360 636 420 969 480 756 540 816 600 876 9 720 121 GrrcccAGracccracrccAGCrGATrCAGGAACGCCTGGCTGAAGAGGATTGCATC 180 9 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 61 TIAAATGAGTTTTCCTATACGGCCACCGAAGCCAGAAGGCTTTATCTGCAAAGGAAGACA 217 ATAGCAATGTGGCTCTGCAAACATCTGAACAGCAGTCTCCTCCTCGCGAGAACCTGATC GTTCCCAGCGCGCTGCTCCAGCTGATTCAGGAACGCCTGGCTGAAGAGAGGATTGCATC AAGCAGGGCTGGATTCTGGATGGCATCCCTGAGACGCGTGAGCAGGCTCTGAGGATCCAG ACCCTGGGGATCACACCCCAGACACGTCATTGTGCTGCTGCTCCAGACACGGTCCTGATC 241 ACCCTGGGGATCACCCCAGACACGTCATTGTGCTGAGTGCTCCAGACACGGTCCTGATC GAGAGAAACTTGGGGAAGAGAATCGACCCTCAAACTGGAGAGATTTATCACACCATTT GAGAGAAACTTGGGGAAGAATCGACCCTCAAACTGGAGATTTATCACACCACCTTT GACTGGCCACCCGAATCTGAAATCCAGAACCGTCTCATGGTGCCAGAGGACATCTCAGAG CTGGAGACGCCTCAGAACTGCTGGAGTATCATAGGAACATCGTCAGGGTCATTCCCTCC cregagacescreagaacregragaararcaraggaacarcercagggrearrected TACCCCAAAATCCTCAAAGTCATCAGTGCTGACCAGCCATGTGTGGACGTCTTCTACCAG GCTCTGACCTATGTCCAAAGCAACCATCGTACTAATGCCCCCGTTCACCCCGAGGGTGCTG CTGCTCGGGCCTGTGGGGAAAAGTCTGCAGGCCGCCCTCCTGGCCCAGAAATAC AGGCTTGTCAATGTCTGCTGTGGGCAACTGCTGAAAGAGGCTGTGGCAGATAGGACCACG Gaps °, Length 774; Indels Score 759.8; DB 6; Pred. No. 2.1e-172; 0; Mismatches 2; 27802, an adenylate kinase Patent: WO 0159082-A 3 16-AUG-2001; Millennium Pharmaceuticals, Inc. (US) Location/Qualifiers /organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606" 1 Kapeller-Libermann, R. and Chun, M. AX211565 774 bp Sequence 3 from Patent W00159082. AX211565 AX211565.1 GI:15523817 Query Match 52.8%; Best Local Similarity 99.7%; Matches 761; Conservative ( Homo sapiens (human) Homo sapiens 661 셤

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inncoln,S.E., Altus,C.M., Dufour,G.E., Chalup,M.S., Hillman,J.L.,
Jones,A., Yu,J.Y., Wright,R.J., Gietzen,D., Liu, Toomy,F., Yap,P.,
Jones,A., Yu,J.Y., Moniyama,M., Bradley,D., Rohagis,S., Harris,B.,
Roseberry,A.M., Gerstin,B.H., Peralta,C.H., David,M., Panzer,S.,
Flores,V., Daffo,A., Marwaha,R., Chen,A., Chang,S.C. and Inman,R.R.
Molecules for diagnostics and therapeutics
Patent: WO 0220754-A 3 14-MAR-2002;
Incyte Genomics, Inc. (US)
                                                     PAT 07-MAY-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               378 AGCTGATTCAGGAACGCCTGGCTGAAGAGGATTGCATCCAAGCAGGGCTGGATTCTGGATG 437
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
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                                                                                                                                                                                                                                                                                                                                                                                                                          Length 615;
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 39.9%; Score 574; DB 6; Length 61: Best Local Similarity 99.7%; Pred. No. 1.5e-127; Matches 596; Conservative 0; Mismatches 0; Indels
                                                      linear
                                                      mRNA
                                                615 bp
Sequence 3 from Patent WO0220754.
AX721043
                                                                                            AX721043.1 GI:30421879
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                                                                                                                                                                                                                                       Venter, C.J., Adams, M.C., Li, P.W. and Myers, B.W.
Kits, such as nucleic acid arrays, comprising a majority of
humanexons or transcripts, for detecting expression and other uses
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Bukaryota, Metazoa; Chordata; Craniata, Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                          tch 40.1%; Score 577; DB 6; Length 577; al Similarity 100.0%; Pred. No. 2.9e-128; 577; Conservative 0; Mismatches 0; Indels
                721 TTTGGCGAGCTCATCCAGCCCTTCTTTGAAAAGGAGATGGCAG 763
                                                                                               linear
TTTGGCGAGCTCATCCAGCCCTTCTTTGAAAAGGAGGAGGCAG 979
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Patent: WO 02068579-A 10688 06-SEP-2002;
PR Corporation (NY) (US)
Location/Qualifiers
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                                                                                               CQ724754 577 bp DNA
Sequence 10688 from Patent WO02068579.
CQ724754 GI:42285611
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937
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host="DH10B"
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Best Local Similarity 61.6%;
Matches 885; Conservative (
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                                                                            /lab
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                                                                                                                                                                                                                                                                                                                                             Straubberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Schemen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buctow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Wax, S.I., Wang, J., Haich, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Staplecon, M., Soares, M.M. B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Boack, S.A., McEwant, F.J.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Wanny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Waddan, A., Rodrigues, S.
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Butterfield, Y.S., Krzywinski, M.I., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Sakaika, U., Smailus, D.E.,
Generation and mouse cDNA sequences
L. Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                  mRNA linear VRT 23-AUG-2004
protein MGC76170, mRNA (cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Steve Jones, Sarah Barber, Mabel Brown-John, Yaron Butterfield, Andy Chan, Steve S. Chand, William Chow, Alison Cloutier, Ruth Featherstone, Malachi Griffith, Obi Griffith, Ran Guin, Nancy Liao, Kim MacDonald, Amara Masson, Mike R. Mayo, Josh Moran, Ryan Morin, Teika Olson, Diana Palmquist, Anca Petrescu, Anna Liisa Prahbu, Barvaneh Saeedi, J. R Santos, Angelique Schnerch, Ursula Skalska, Duane Smallus, Jeff Stott, Miranda Tsai, George Yang, Jacquie Schein, Asim Siddiqui, Rob Holt, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clone distribution: MGC clone distribution information can be found
                                                                                                                                                                                                                                                   Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae;
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Series: IRAK Plate: 142 Row: e Column: 22
This clone was selected for full length sequencing because it
passed the following selection criteria: Similarity but not
identity to protein.

Location/Qualifiers
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Submitted (17-NOV-2003) National Institutes of Health, Xenopus Gollection (3GC), National Institute of Child Health and Human
Development, G100 Executive Boulevard, Room 4B01, Rockville, MD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Robert M. Grainger
cDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Genome Sequence Centre,
BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                   tropicalis (Silurana tropicalis)
                                                                          Xenopus tropicalis hypothetical protein
MGC:76170 IMAGE:5335533), complete cds.
                                                  1674 bp
                                                                                                                                                                                                                                                                                                          Xenopodinae; Xenopus; Silurana.
1 (bases 1 to 1674)
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                                                                                                                                                 BC062516.1 GI:38566161
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Contact: XGC help desk
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Xenopus tropicalis
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                                                                                                                                                 VERSION
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AUTHORS
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JOURNAL
RESULT 14
BC062516
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/organism="Xenopus tropicalis" /mol_type="mRNA"

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MTDPVSGERYHDIYKPAPSSEVHERLQQNPRHSEQRVQARLDMYHANAEELDEFYPDV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 ATCCCTGAGACGCGTGAGGCTCTGAGGATCCAGACCCTGGGGATCACACCCCAGACAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 553.8; DB 5;
Pred. No. 1.1e-122;
0; Mismatches 552;
                                                                                                                                                                                                               /note="Vector: pCMV-SPORT6.1"
                                                                                                                                            clone lib="NICHD XGC Emb7"
                                                                                                                                                                                                                                                                              /gene="MGC76170"
/db_xref="LocusID:394708"
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1321 GCTGACTTGGAGCAGTTCTATGGGCCCATCACCCTCAATGGGGACCAGACCCATAC 1380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    966 ATTGAGAATGACCAGCAAGTGCCAGATAACCTTGTCTTGAAGATCTTAACAGAACACCTT 1025
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081 CAGGCACACCTGCTGAACCGCCTGGGCTACAATCCCAACAGGGTGTTTTTCCTGAATGTG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1086 CAGGCTGCTCCTGCTGAAAGATGCAGGGTTTGTGCCCAACAGGGTCTTCTCTCTGGATCTC 1145
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GAGTATCATAGGAACATCGTCAGGGTCATTCCCTCCTACCCCAAAATCCTCAAAGTCATC 720
                                                                                                           666 GAGTACCACAGAAATATCCCAGGCATATTGCGCACTTACCCAAAGACGTCCAAGAAGATA 725
                                                                                                                                                            AGTGCTGACCAGCCATGTGTGGACGTCTTCTACCAGGCTCTGACCTATGTCCAAAGCAAC 780
                                                                                                                                                                                          CATCGTACTAATGCCCCGGTTCACCCCGAGGGTGCTGCTGCTCGGCCCTGTGGGCAGTGGG 840
                                                                                                                                                                                                                                                                                                                                         841 AAAAGTCTGCAGGCCGCCCTCCTGGCCCAGAATACAGGCTTGTCAATGTCTGTGGG 900
                                                                                                                                                                                                                                                                                                                                                                      CAACTGCTGAAAGAGGCTGTGGCAGATAGGACCACGTTTGGCGAGCTCATCCAGCCCTTC 960
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ACCESSION
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KEYWORDS
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ORGANISM
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Venter, C.J., Adama, M.C., Li, P.W. and Myers, B.W.

Kits, such as nucleic acid arrays, comprising a majority of humanexons or transcripts, for detecting expression and other uses

Patent: WO 02068579-A 20806 06-SEP-2002;

thereof

JOURNAL

REFERENCE AUTHORS TITLE

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

Homo sapiens (human) Homo sapiens

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1181
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                                                                                                                                                                                                                1290 GGTGTTTTTCCTGAATGTGCCATTTGATTCCATCATGGAGCGGCTGACTCTGAGAAT
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                                                                                                                                                                                                                                                           1182 TGATCCAGTCACTGGGGAAAGGTACCACCTCATGTACAAGCCACCTCCCACCATGGAGAT
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                                                                                                                             Length 1608;
                                                                                                                                                              0; Indels
                                                                                                                           Query Match 22.2%; Score 319; DB 6; L
Best Local Similarity 100.0%; Pred. No. 5.4e-66;
Matches 319; Conservative 0; Mismatches 0;
PE Corporation (NY) (US)
Location/Qualifiers
1. 1608
| crganian="Hono sapiens"
|/mol_type="unassigned DNA"
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